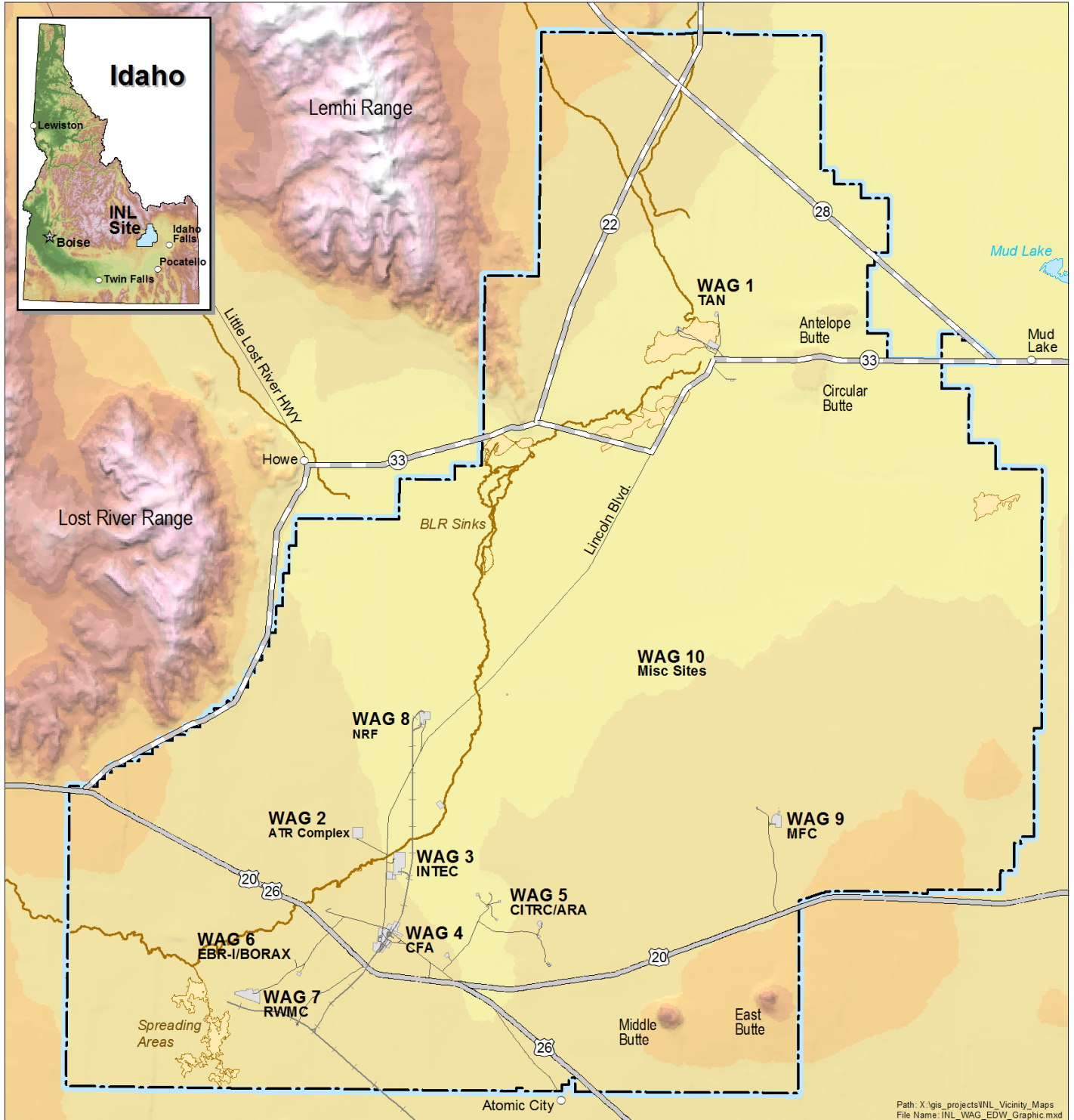


# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## INL WAG Locations



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG Site Index

WAG	Sites
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WAG 4 - CFA	CFA-01, CFA-02, CFA-03, CFA-07, CFA-08, CFA-11, CFA-55, CFA-56, WAG 4 GW and Drilling IC Area
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WAG 6 - EBR-I/BORAX	BORAX-01, BORAX-02, BORAX-09, EBR-08
WAG 7 - RWMC	WAG 7 GW and Drilling IC Area, WAG 7 Land Use Control Area
WAG 9 - MFC	ANL-01, ANL-04, ANL-09, ANL-67
WAG 10 - Misc Sites	MISC-26, MISC-35, MISC-50, OMRE-01, ORD-01, ORD-03, ORD-06, ORD-08, ORD-09, ORD-10, ORD-13, ORD-15, ORD-16, ORD-19, ORD-21, ORD-24, ORD-28, ORD-30

# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: IET-04 - IET Stack Rubble Site

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** IET-04 contains buried rubble from the IET exhaust stack and monitoring vault. These structures were used from 1958 to 1961 to release the exhaust from the nuclear jet engine into the atmosphere. The structures were decontaminated and decommissioned in 1986 and the structures were backfilled into a trench. The site is currently buried 15 to 20 feet below ground surface.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Fencing requirements  
Long-Term Stewardship Tracking System  
Marker requirements  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

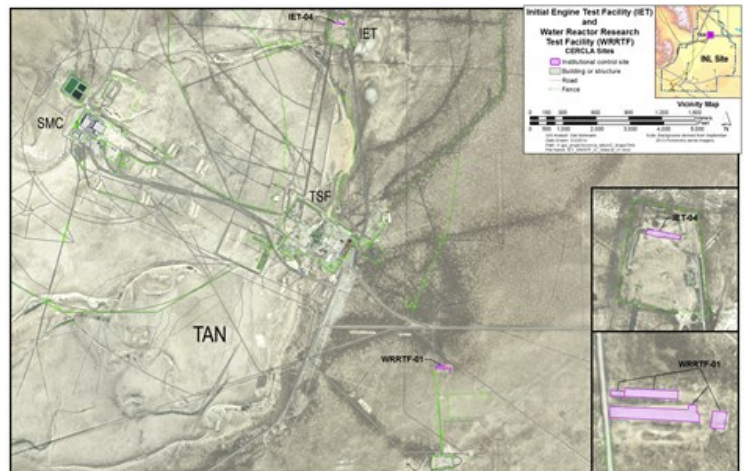
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2064

**IC Termination Notes:** 5-Yr Review Table 10-5 (DOE/ID-11429)

**ROD-Selected Remedy:** No further action with institutional controls.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-05 - TSF Injection Well

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-07B

**Description:** The TSF-05 injection well was drilled in 1953 to a depth of 93.0 m (305 ft) to dispose of liquid effluent generated from the ANP Program slated to be sited at TAN. The well was last used as a primary disposal site in September 1972 after which wastewaters were diverted to the TSF disposal pond (TSF-07). Discharges included treated sanitary sewage, process wastewaters, and low-level radioactive waste streams from TSF-09 and TSF-26.

**Contaminants:** Cs-137, H-3, Sr-90, U-233/U-234, cis-1,2 dichloroethene, tetrachloroethylene, trans-1,2 dichloroethene, trichloroethylene

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

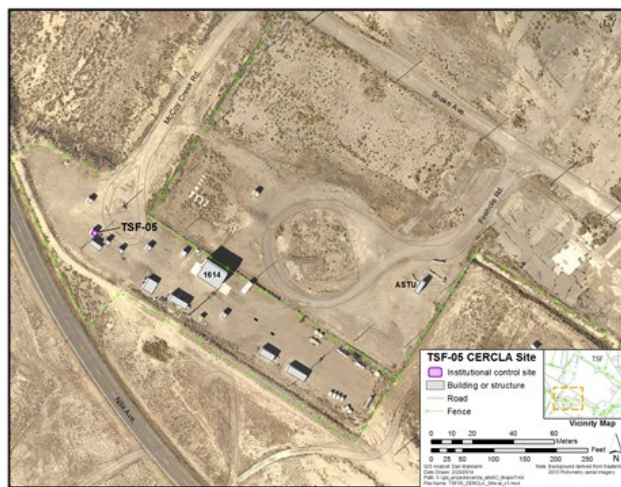
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2095

**IC Termination Notes:** Table 12-2, Rev. 0, DOE/ID-11429

**ROD-Selected Remedy:** In situ bioremediation, pump and treat, monitoring, and institutional controls

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-06 Area 01 - Soil Area Northeast of Turntable

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-05

**Description:** TSF-06 Area 1 is located within the facility fence at Test Area North. It is a large, open, soil area with elevated levels of radioactive contamination. The source of contamination in Area 1 is windblown contamination from soil surrounding the PM-2A Tanks (TSF-26). Contaminated soils were removed to meet the RGs as documented in the OU 1-10 Remedial Action Report. Cs-137 is the only contaminant of concern remaining at this site.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

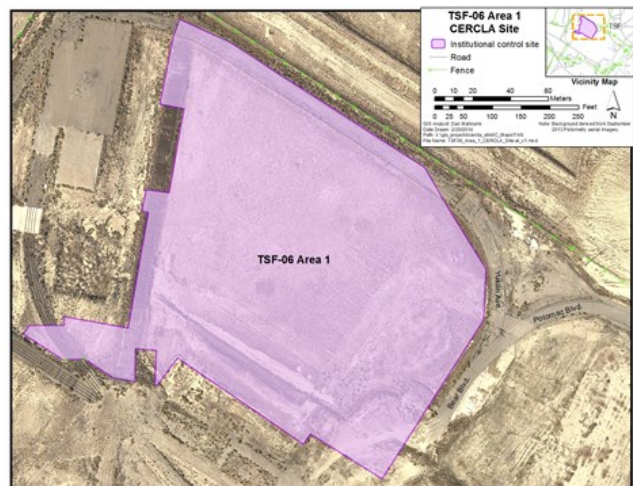
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2043

**IC Termination Notes:** Sitewide 5-Yr Review (DOE/ID-11429), Table 10-5

**ROD-Selected Remedy:** No further action and institutional controls.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-06 Area 10 - Reactor Vessel Burial Site

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** TSF-06 Area 10 was an empty, irradiated reactor vessel contained in a metal storage tank below ground surface. No pathway to human or ecological receptors exists. However, potential residual contamination precludes unrestricted land use. Therefore, the site has been categorized as a "No Further Action" rather than a "No Action" site, per the OU 1-10 ROD amendment, DOE/ID-10682, February 2004.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

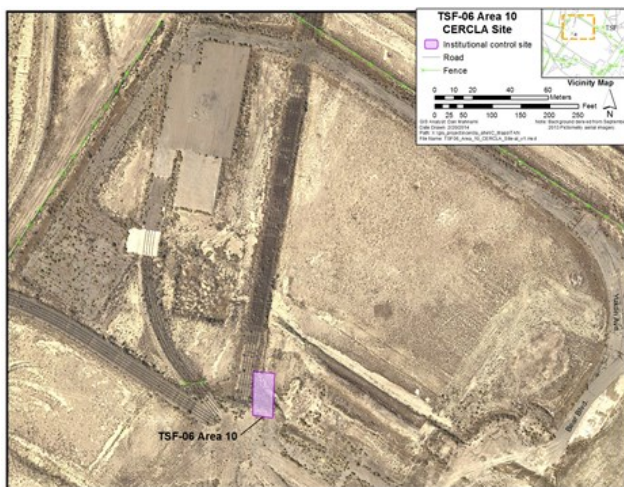
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite 5-Yr Review OE/ID-11429 (DOE/ID-11429)

**ROD-Selected Remedy:** No further action with institutional controls.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-23 - TSF Drinking Water Potential Contamination

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-07B

**Description:** TSF-23 is the surrounding groundwater contamination associated with the TSF-05 Injection Well. In 1987, low levels of trichloroethene and tetrachloroethene were detected in wells used to supply drinking water to workers at TAN. Groundwater remediation and monitoring are on-going.

**Contaminants:** Cs-137, H-3, Sr-90, U-233/U-234, cis-1,2 dichloroethene, tetrachloroethylene, trans-1,2 dichloroethene, trichloroethylene

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

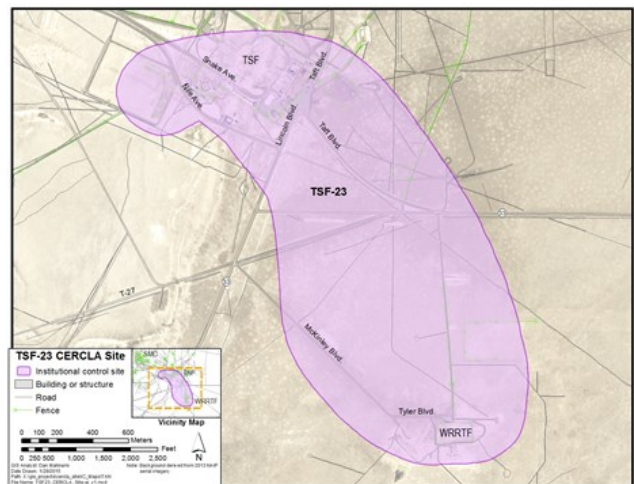
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2095

**IC Termination Notes:** OU 1-07B ROD Amendment, DOE/ID-10139

**ROD-Selected Remedy:** In situ bioremediation, pump and treat, monitored natural attenuation, institutional controls

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-26 - TSF PM-2A Tanks (TAN-710 A&B) and Soils

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** TSF-26 was a large, open soil area with elevated levels of radioactive contamination, which contained two underground storage tanks that were used for the treatment, storage, and disposal of radioactive waste and other wastewater. Remediation is complete at this site (2005). As stated in the OU 1-10 Remedial Action Report, this site is a "No Further Action" site.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

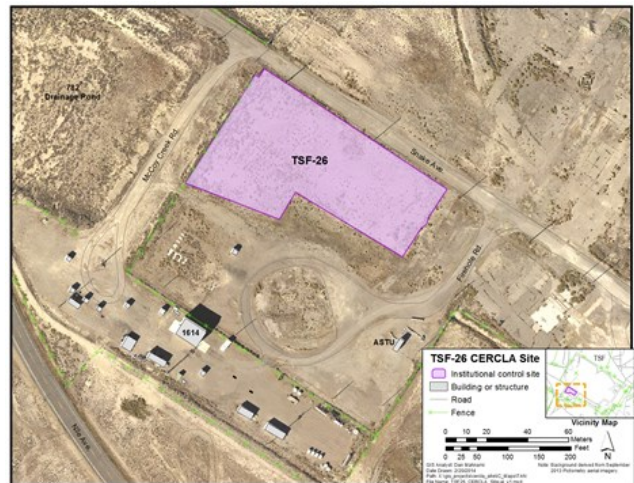
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2058

**IC Termination Notes:** 2058 from OU 1-10 RA Rpt (section 4.2.2.6) TBD, see comments in DOE/ID-11429 (section 2.3.3.3.2)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-28 - TSF Sewage Treatment Plant (TAN-623) and Sludge Dry Beds

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** The TSF Sewage Treatment Plant provided primary and secondary treatment for all TSF sanitary waste. Until 1972, the effluent was disposed in the TSF-05 injection well. From 1972 until 2008, the effluent was routed to a lift station in TAN-655 and pumped to the TSF-07 disposal pond. The sludge that accumulated in the beds was periodically removed and disposed of either at Central Facilities Area Landfill or Radioactive Waste Management Complex. The plant was D&DD in 2008. As stated in the OU 1-10 ROD, this is a "No Further Action" site.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Fencing requirements  
Long-Term Stewardship Tracking System  
Marker requirements  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

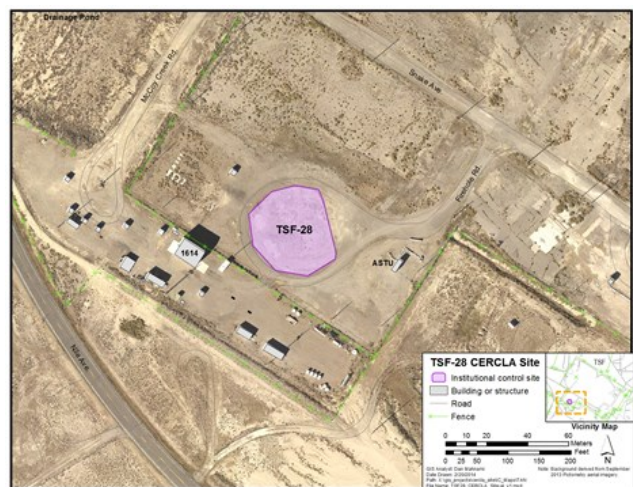
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2018

**IC Termination Notes:** IC termination date calculated in NSI-26009

**ROD-Selected Remedy:** No further action and institutional controls.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-29 - TSF Acid Pond (TAN-735)

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** TSF-29 is an unlined pond that received radioactive and treated process wastewater from 1955 to 1958 in support of the ANP program. The pond was then reoriented and enlarged to receive both wastewater and surface water until the project was canceled in 1961. The pond was enlarged in 1967 to receive additional surface runoff water. In 1976 the pond was partially backfilled with soil containing radioactive particles from cleanup operations around TSF. As stated in the OU 1-10 ROD, this site is a "No Further Action" site.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2036

**IC Termination Notes:** 5-Yr Review, Table 10-5 (DOE/ID-11429)

**ROD-Selected Remedy:** No further action and institutional controls.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-39 - TSF Transite Contamination Near TSF Gravel Pit

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** TSF-39 is an area that contains small pieces of asbestos cement (transite) and is believed to be the result of the construction activities for LOFT. Field inspections have determined that the asbestos material is encapsulated in cement and is not likely to be released. As stated in the OU 1-10 ROD, this is a "No Further Action" site.

**Contaminants:** Asbestos

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

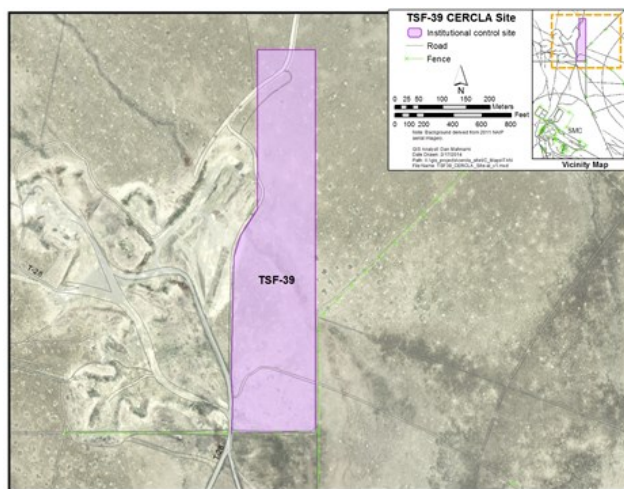
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - 5-Yr Review, Table (DOE/ID-11429)

**ROD-Selected Remedy:** No further action and institutional controls.

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-43 - RPSSA Buildings 647/648 and Pads

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** TSF-43 consists of the Radioactive Parts Service and Storage Area (RPSSA) buildings and the concrete and asphalt pads surrounding the buildings. TSF-43 is located in the northwest corner of the TSF. The soil below and surrounding the buildings and pads is part of site TSF-06.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

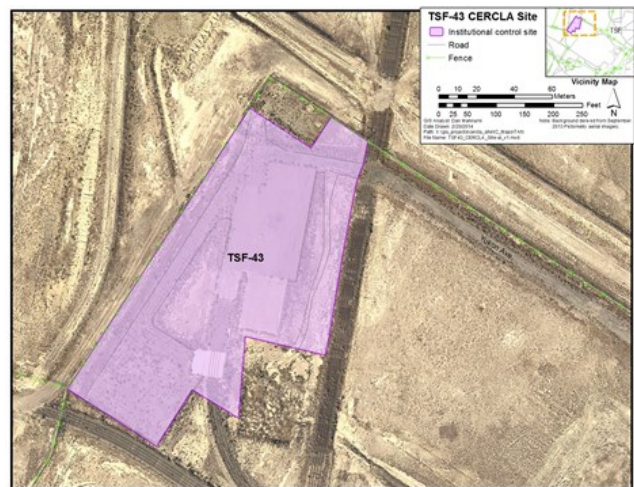
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2055

**IC Termination Notes:** Termination date calculated in NSI-26010

**ROD-Selected Remedy:** No further action and institutional controls.

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-60 - Containment Service Building - TAN-650 (LOFT Area)

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 10: OU 10-08

**Description:** Site consists of the former location of the pressurized water reactor building (TAN-650) and associated piping left in place following removal of the building.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

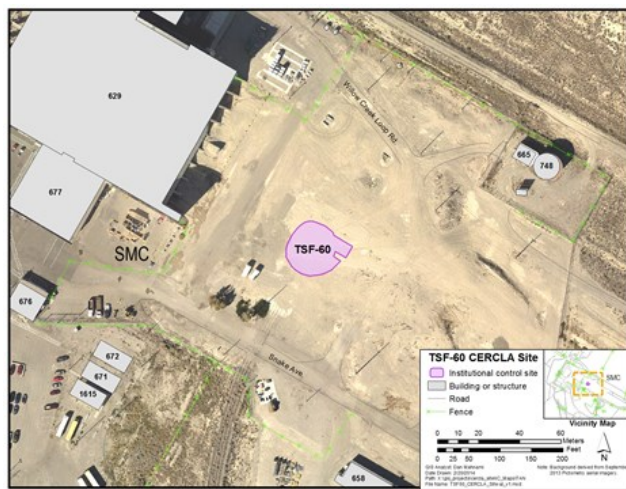
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2019

**IC Termination Notes:** Termination date is identified in the New Site Identification form NSI-25246

**ROD-Selected Remedy:** Removal of above ground structures and components associated with TAN-630 and TAN-650, removal of below ground components with the exception of the TAN-650 lower containment system. Filling the upper and lower containment building sumps with solid inert material, capping appropriate pipe penetrations, filling the lower containment building with inert material, and construction of a long term viable cover over the TAN-650 upper and lower containment building.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: TSF-61 - V-Tanks and TAN-607 Area

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 10: OU 10-08

**Description:** Site consists of the former locations of the V-tanks, TAN-607, and the footprint of removed buildings TAN-608 (Water Filtration), TAN-615 (Maintenance), TAN-616 (Liquid Waste Treatment) TAN-633 (Hot Cell Annex) and TAN-649 (Water Filtration) and the storage pool area at the north end of building TAN-607.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

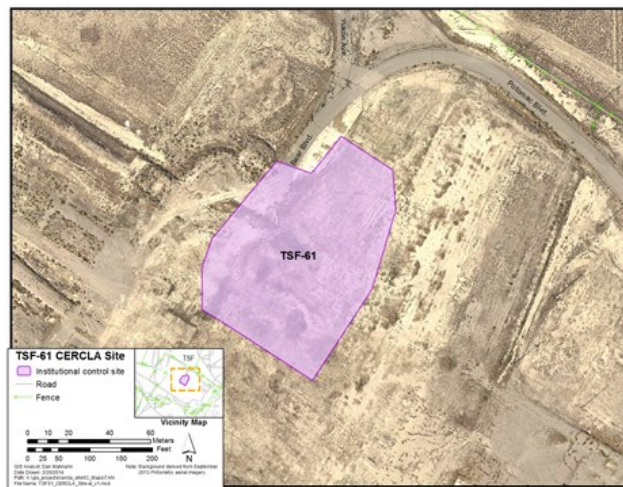
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2060

**IC Termination Notes:** NSI-26012

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: WAG 1 GW and Drilling IC Area - WAG 1 Groundwater and Drilling IC Area

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-07B

**Description:** Institutionally controlled groundwater area.

**Contaminants:** Cs-137, H-3, Sr-90, U-233/U-234, cis-1,2 dichloroethene, tetrachloroethylene, trans-1,2 dichloroethene, trichloroethylene

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

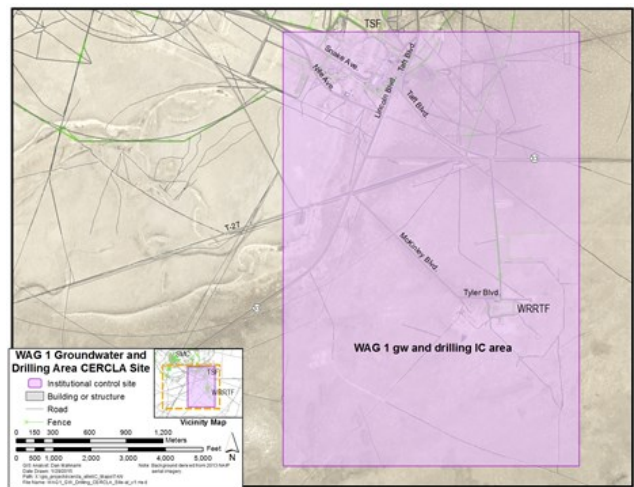
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2095

**IC Termination Notes:** per Doc ID 10139, Section 9.2, 3rd and 4th bullets

**ROD-Selected Remedy:** Updated in Revision 7 of the IC/O&M plan (DOE-ID 2012a)

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 1: WRRTF-01 - WRRTF Burn Pit

**Physical WAG:** WAG 1 - TAN

**Administrative WAG/OU:** WAG 1: OU 01-10

**Description:** The WRRTF Burn Pits located north of WRRTF were used for open burning of combustible waste generated at the TAN facilities from 1958 to 1957. The pits involve four separate areas. No RCRA wastes are suspected of having been disposed of at these sites. The remedy for Pits II and IV has been changed to native soil cover and the COC is asbestos. The remedy is complete. No future environmental monitoring is required at this site because lead is no longer a COC.

**Contaminants:** Asbestos

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

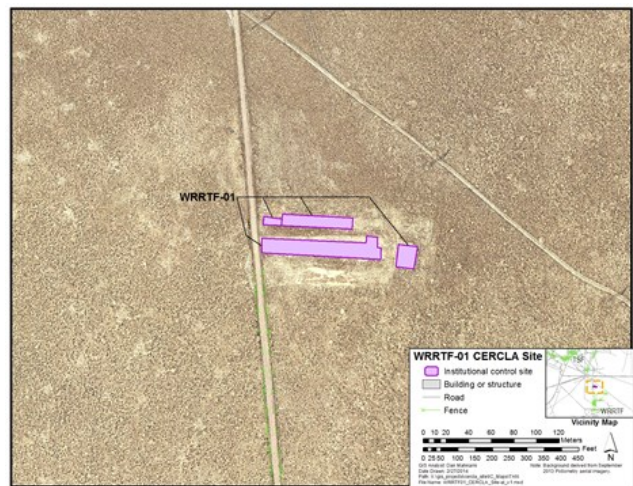
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite (Table 10-5, Rev. 0, DOE/ID-11429)

**ROD-Selected Remedy:** Native soil cover and boundary monuments

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-03B - TRA Warm-Waste Pond - Sediments

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-10

**Description:** TRA-03 consists of three engineered covers, two finished with large riprap (cells 1964 and 1962) and one finished with soil (cell 1957) located east of the TRA facility. The Warm Waste Pond received low-level radioactively contaminated wastewater from TRA operations until 1993, radiologically contaminated soil from the 1993 OU 2-10 interim action and the 1995 OU 10-06 removal action, contaminated soil and asphalt from 1992 stockpiles, and the contaminated structure formerly located east of the 1952 and 1957 cells.

**Contaminants:** Ag-108m, Cs-137, Eu-152

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Groundwater use restrictions  
Long-Term Stewardship Tracking System  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements  
Well drilling/construction restrictions

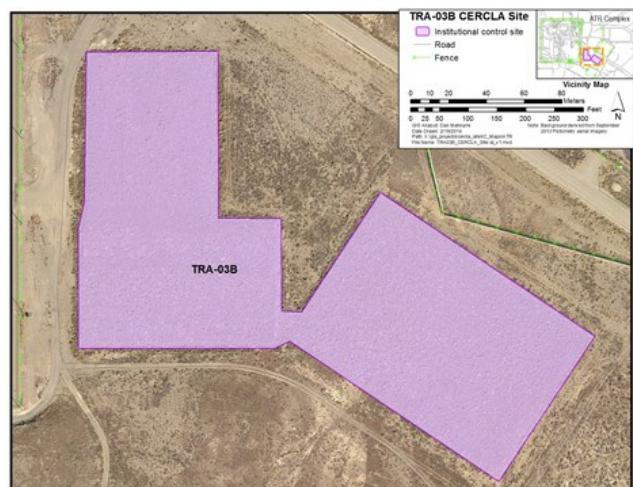
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** Engineered soil cover and institutional controls

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-04 - TRA Warm-Waste Retention Basin (TRA-712)

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-13

**Description:** The warm waste retention basin (TRA-04) is a large underground (10 feet bls) concrete basin divided into two cells that received waste en route to the warm waste pond. It is located in the southeastern portion of TRA south of building TRA-636. The basin leaked wastewater from 1970 to 1993 when it was taken out of service except for the north end which is the collection point for wastewater discharged to the new evaporation pond (TRA-715).

**Contaminants:** Co-60, Cs-137, Pu

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

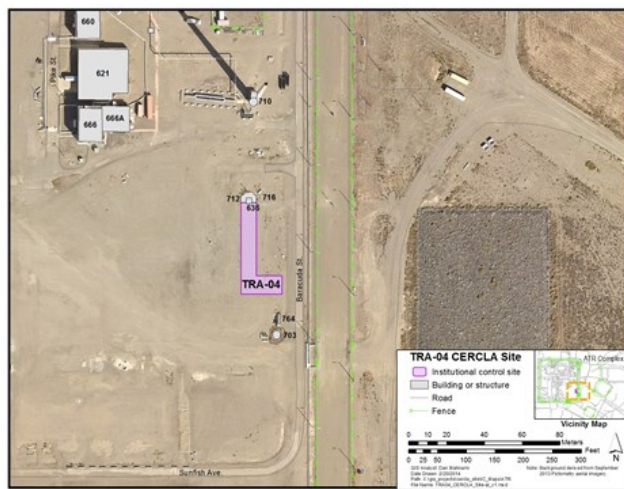
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further actions with ICs - OU 2-13 ROD (DOE/ID-10586) section 8.1.9

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-06 - TRA Chemical Waste Pond (TRA 701)

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-13

**Description:** TRA-06 is old TRA chemical waste pond. It has a native vegetated soil cover, and is located northeast of TRA outside of and adjacent to the boundary of the fence. The contamination is 14 feet below the surface. It received effluent containing mineral salts, and corrosives such as acids, and other waste.

**Contaminants:** Aroclor 1260, Arsenic

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

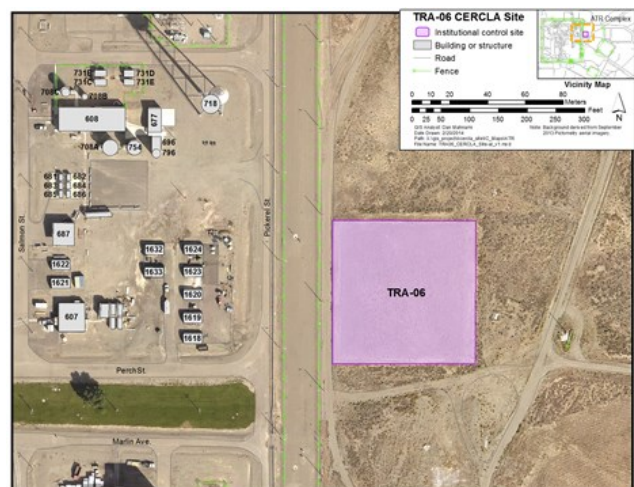
**IC Source Reference:** DOE-ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - Five-Yr Review (DOE-ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** Native soil cover OU 2-13 ROD (DOE-ID-10586) section 8.1.2

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-08 - TRA Cold Waste Disposal Pond (TRA-702)

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-09

**Description:** TRA-08 is the TRA Cold Waste Pond which is an active disposal pond for nonradionuclide wastewater from TRA. It has been in operation since 1982 and is located southeast of the TRA security fence. Cesium contamination was removed in 1999 to acceptable levels for industrial use.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2021

**IC Termination Notes:** North Pond - ICs are no longer required, South Pond - 2021 (Table 10-5, Rev.0, DOE/ID-11429)

**ROD-Selected Remedy:** Removal and Disposal. OU 2-13 ROD (DOE/ID-10586) section 8.1.3

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-13 - TRA Final Sewage Leach Ponds by TRA-732

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-13

**Description:** TRA-13 is the former TRA sewage leach pond located outside the TRA facility fence. It consisted of two cells (1950 and 1965) that received effluent from sanitary sewer drains located throughout TRA. Radioactive contaminants have been identified in the soils of the leach pond, and are attributed to windblown sediments from the Warm Waste Pond.

**Contaminants:** Ag-108m, Cs-137, Mercury, Zinc

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

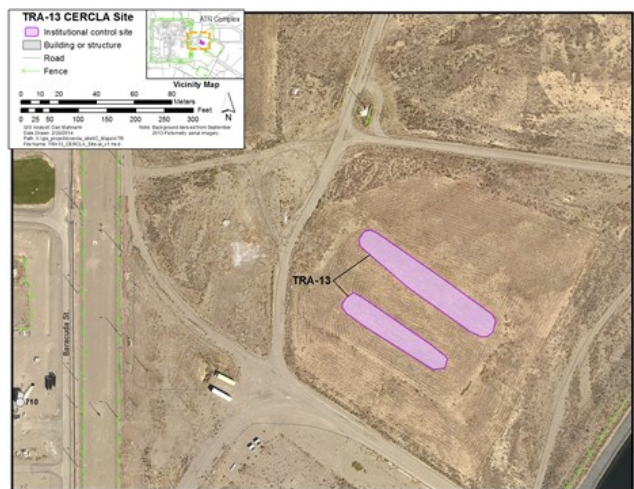
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2063

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** Native soil cover and institutional controls. OU 2-13 ROD (DOE/ID-10586) section 8.1.4

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-15 - TRA Hot Waste Tanks #2, #3, #4 at TRA-613

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-05

**Description:** TRA-15 consists of radioactively contaminated soil surrounding 2 tanks that leaked in 1993-1994. TRA-15 also serves as a corollary for release sites associated with the Hot Waste System. The tanks were removed in 2012, but contaminated soil remains.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

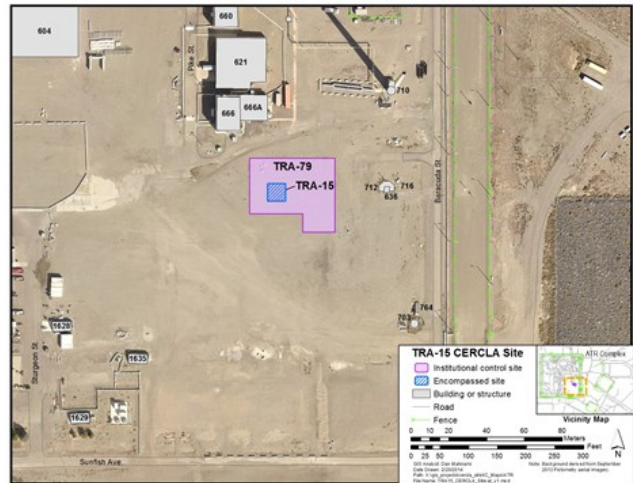
**IC Source Reference:** DOE-ID-11042

**IC Termination Year:** 2260

**IC Termination Notes:** Five-Yr Review (DOE-ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs (DOE-ID 1997b, 2000b)

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-19 - TRA Rad Tanks 1 and 4

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-05

**Description:** TRA-19 consists of subsurface soil contamination that likely resulted from leaks in radiologically contaminated waste drain lines, or releases from catch tanks associated the MTR.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

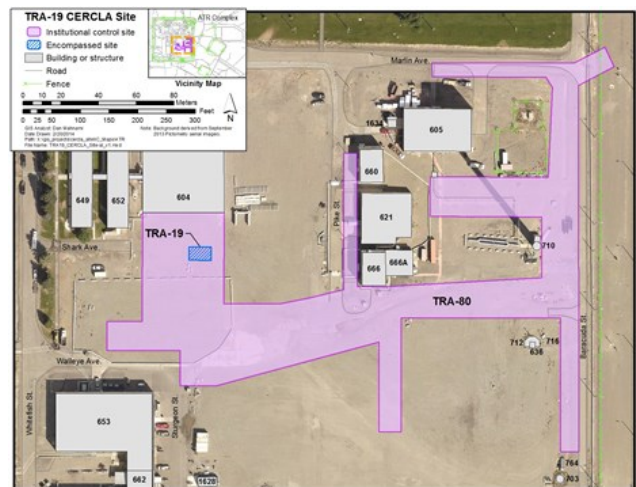
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2360

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs and contingent removal and disposal option (DOE-ID 1997B, 2000b)

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-61 - Gamma Building (TRA-641) Warm Waste Line to the Catch Tank Vault (TRA-730)

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-13

**Description:** Gamma Building (TRA-641) warm waste line to the catch tank vault (TRA-730).

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:**

**ROD-Selected Remedy:** Site was identified post ROD

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-63 - TRA-605 Warm Waste Line

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 10: OU 10-08

**Description:** On October 9, 2001, during excavation for replacement of an underground line that carried warm waste, a break in a 4-inch pipe was discovered. The 4-inch pipe is a tributary that feeds into a 30 in. Warm Waste Pipe that connects TRA-605 (Warm Waste Treatment Facility) to TRA-716 (Warm Waste Pumping Station). A review of records indicates that the break occurred after September 1997. There was no indication of a leaking pipe until excavation around the pipe occurred. The leaking pipe was repaired and warm waste was discharged through an alternate path to the Test Reactor Area Evaporation Pond. The soil in proximity to the pipe is potentially radioactively contaminated.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Fencing requirements  
Long-Term Stewardship Tracking System  
Marker requirements  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2019

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No further action with institutional controls.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-75 - Shallow Injection Wells TRA-2128 (32-TRA) and TRA-2129 (33-TRA)

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 10: OU 10-08

**Description:** Shallow injection wells TRA-2128 (Well ID: 2128, aka 32-TRA) and TRA-2129 (Well ID: 2129, aka 33-TRA) that were used as floor drains in building TRA-655 (ETR Air Intake Building). The building was D&D'd in 2005, and the wells were covered with clean fill material.

**Contaminants:** Cs-137, Lead

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

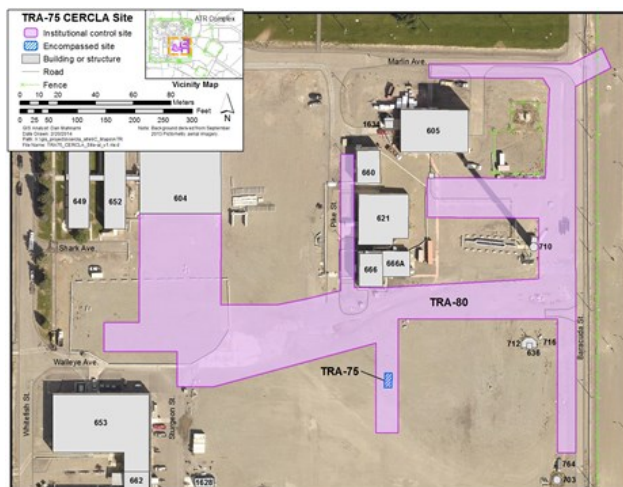
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:**

**ROD-Selected Remedy:** Removal and Disposal Plug-In Remedy

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-79 - Soil Contamination at TRA-761 and Truck Arch

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:**

**Description:** Soil contamination at TRA-761 and truck arch. Site will encompass TRA-15.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

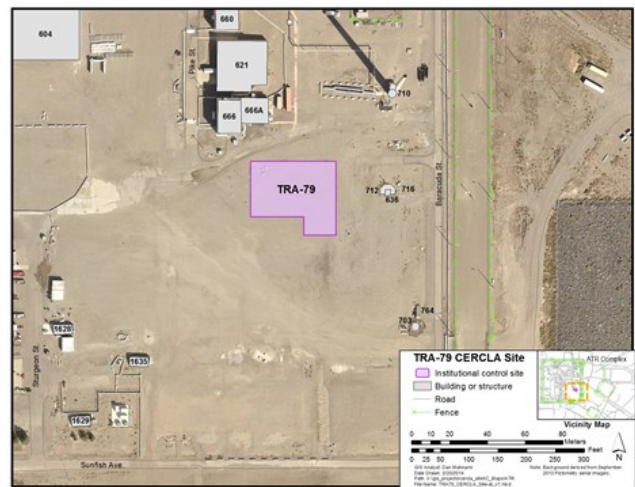
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:** Termination date will be calculated in Part B of the NSI

**ROD-Selected Remedy:** Site identified post ROD

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-80 - TRA Courtyard Area

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:**

**Description:** TRA courtyard area. Site encompasses sites TRA-19 and TRA-Y.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

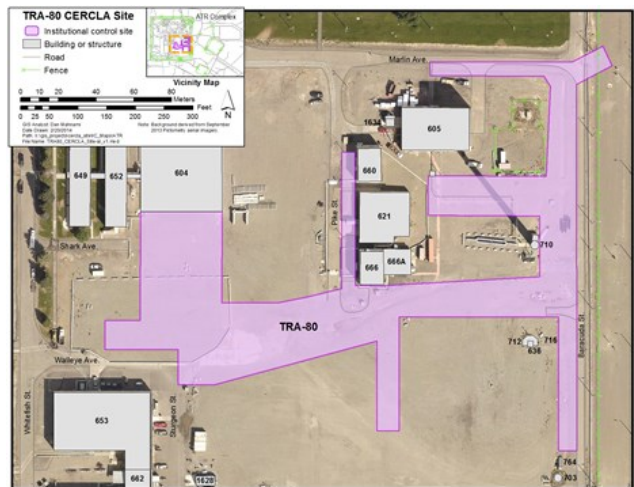
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:**

**ROD-Selected Remedy:** Site identified post ROD

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-82 - Soil Contamination above Warm Waste Line

### Physical WAG: WAG 2 - ATR Complex

**Administrative WAG/OU:**

**Description:** Contaminated soil.

### Contaminants:

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

## Fencing requirements

## Long-Term Stewardship Tracking System

## Marker requirements

## Physical security requirements

## Property transfer/lease requirements

## Signage requirements

### Site disturbance requirements

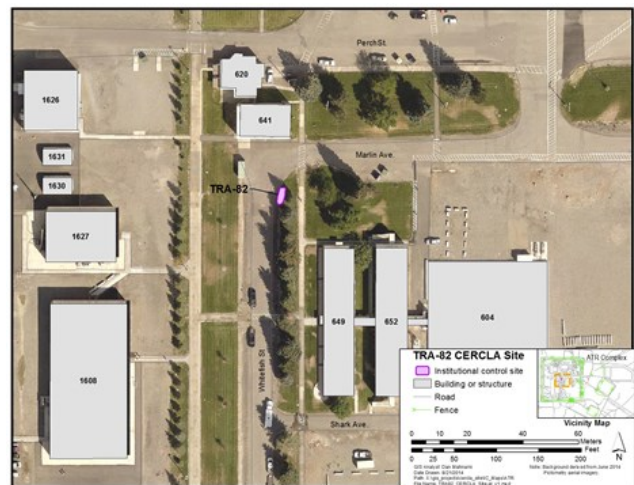
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

### IC Termination Notes:

**ROD-Selected Remedy:** Site identified post-ROD

### Remediation Complete:





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-83 - MTR Reactor location

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:**

**Description:** TRA-83 consists of the former location of the MTR reactor.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

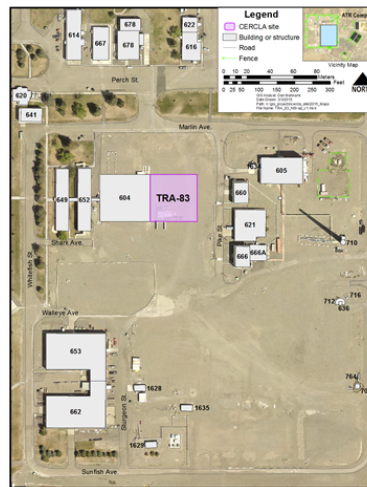
**IC Source Reference:**

**IC Termination Year:** Not Specified

**IC Termination Notes:** IC's will be established in Part B of the NSI form.

**ROD-Selected Remedy:** Remedy will be specified in Part B of the NSI form

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-84 - ETR Reactor Location

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:**

**Description:** TRA-84 consists of the former location of the ETR reactor.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

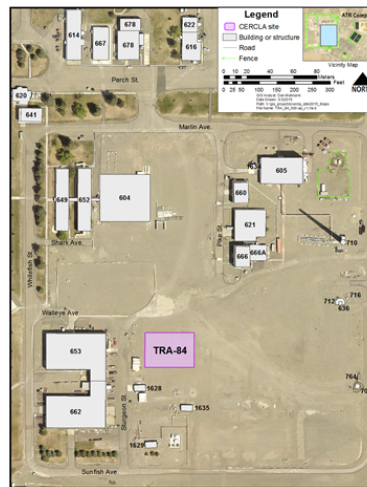
**IC Source Reference:**

**IC Termination Year:** Not Specified

**IC Termination Notes:** IC's will be established in Part B of the NSI form.

**ROD-Selected Remedy:** Remedy will be specified in Part B of the NSI form.

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-86 - SIW 36-TRA at the former Neutron Chopper 20 Meter House (TRA-665)

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:**

**Description:** TRA-86 is comprised of dry SIW 36-TRA located at the ATR Complex. SIW 36-TRA was connected to a floor drain in former Building TRA-665, Neutron Chopper 20 Meter House (Chopper House). The SIW is identified as a SWMU.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

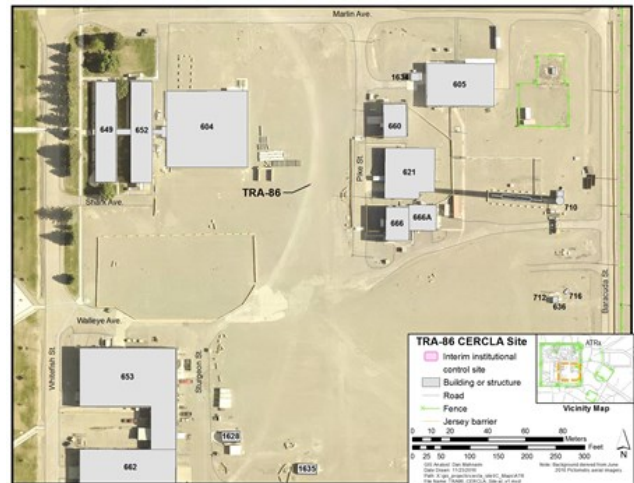
**IC Source Reference:**

**IC Termination Year:**

**IC Termination Notes:**

**ROD-Selected Remedy:**

**Remediation Complete:**





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-B - TRA PCB Spill at TRA-619

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-04

**Description:** This site is located in the northeastern portion of TRA, on the east side of Building TRA-619. The soils are contaminated with PCBs from a transformer spill. Contamination is above the action level for residential use.

**Contaminants:** PCB

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

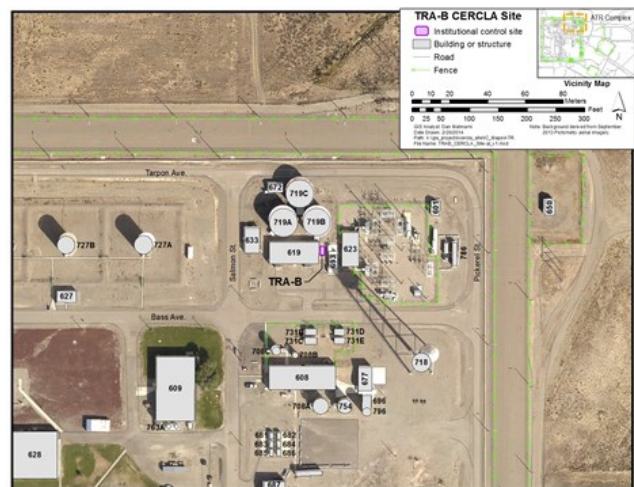
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate - Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-J - Perched Water RI/FS

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-12

**Description:** Infiltration of water from the pond system at TRA has caused contaminant migration to the vadose zone and Snake River Plain Aquifer. Chromium and tritium plumes with concentrations currently above maximum contaminant levels (100 ug/L) extend both south and southwest of TRA.

**Contaminants:** Chromium, H-3

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

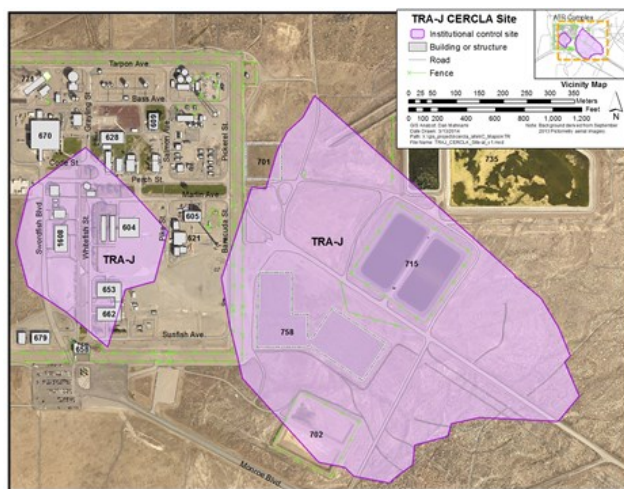
**IC Source Reference:** DOE-ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate - Five-Yr Review (DOE-ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No action with ICs and monitoring.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-M - TRA Sewage Leach Pond Berms and Soil Contamination Area

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-13

**Description:** TRA-M (TRA-SCA) the Sewage Leach Pond Soil Contamination Area is the radiologically contaminated area surrounding the Sewage Leach Pond Native Soil cover.

**Contaminants:** Cs-137

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

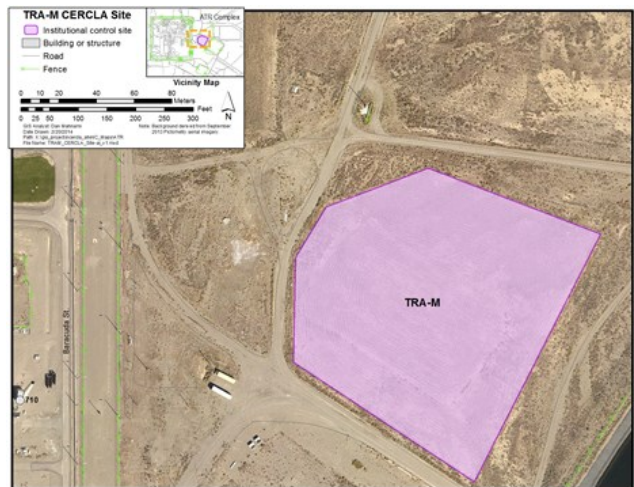
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2038

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs and O&M.

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: TRA-Y - TRA Brass Cap Area

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-13

**Description:** TRA-Y consists of soil contamination that is attributed to leaking warm waste lines. Some contaminated soil was removed when the leak was repaired, however contamination remains at levels that preclude release of institutional controls. A brass cap (hence the Brass Cap Area) was placed in the concrete to designate the area of subsurface contamination. D&D actions in 2012 removed the brass marker and much of the surface soils, but ICs remain because of residual contamination.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

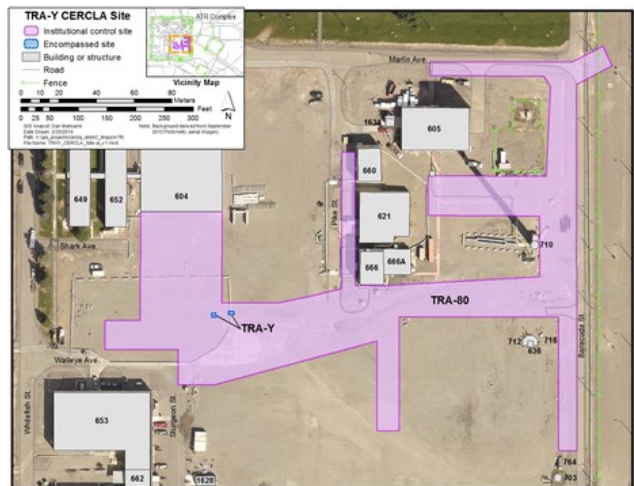
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2360

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs and O&M.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 2: WAG 2 GW and Drilling IC Area - WAG 2 Groundwater and Drilling IC Area

**Physical WAG:** WAG 2 - ATR Complex

**Administrative WAG/OU:** WAG 2: OU 02-13

**Description:** This is not a specific CERCLA site, rather it is an institutionally controlled area. The location of the restricted area is illustrated on the map below. The boundary of the drilling and groundwater institutional control has been conservatively estimated to include those areas where groundwater could be expected to approach, or exceed MCLs. Through the use of the ongoing review process for the IC plan and the CERCLA 5-year reviews, this boundary will be adjusted, as necessary, to ensure that the areas where groundwater exceeds MCLs are included in this restricted area.

**Contaminants:** Chromium

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

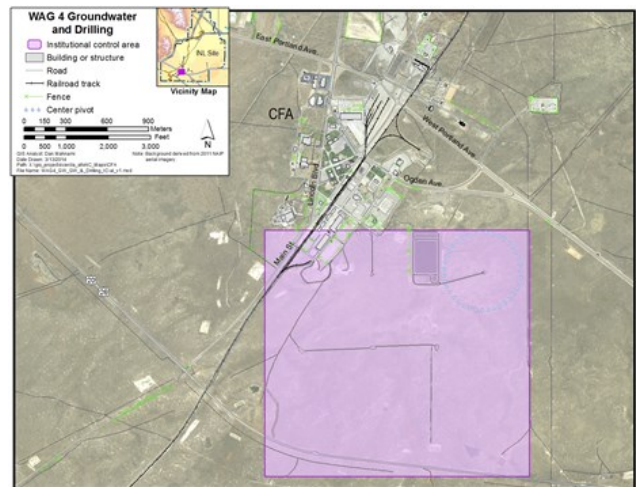
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:** ICs will continue until the Chromium concentrations in groundwater are less than MCLs. This is Per DOE/ID-10744, Table B-2, which also estimates ~ 20 years

**ROD-Selected Remedy:** Not addressed in a ROD

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-01 - Concrete Settling Basin, Vault, and Dry Wells East of CPP-603

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** CPP-01 is classified as Group 3, "Other Surface Soils" and includes CPP-301, CPP-740, SW-048 and CPP-303 (CPP-01S). This site is associated with the fuel storage basin cleanup support system and consists of the concrete horizontal settling basin (CPP-740), concrete vertical settling pit (CPP-301), and two dry wells (CPP-603 and MAH-SFE-SW-048). The fuel storage basin cleanup support system received a backwash slurry of filter aid material from the Fuel Receiving and Storage Facility filter system. Excavation of contaminated soils and related structures, followed by backfilling with clean soils was completed in 2008.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-02 - French Drain West of CPP-603

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This is a Group 2 site, "Soils under Buildings and Structures." Site CPP-02 is an old French drain that was abandoned and partially excavated in 1966 and is located beneath Building CPP-603. Contamination at this site resulted from past hazardous or radioactive liquid spills, leaks and plant operations. The building is assumed to be providing containment of the contamination. Site will be addressed when building is demolished.

**Contaminants:** I-129, Nitrate as Nitrogen, Sr-90, Tc-99

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

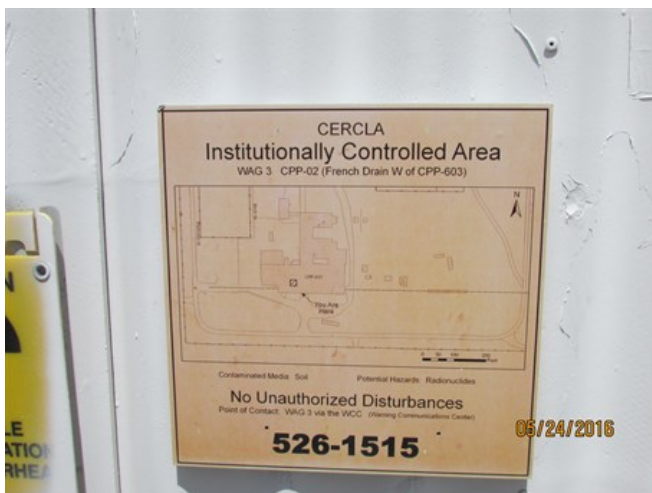
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Site will be addressed when the building is demolished.

**ROD-Selected Remedy:** Deferred remedy pending D&D of buildings

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-04 - Contaminated Soil Around CPP-603 Settling Tank

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." The sites CPP-04 and -05 are located east of CPP-603 and were combined because they were determined to have resulted from the same release. The soil contamination resulted from unintentional sludge releases during 1978. Excavation of contaminated soils that exceeded RGs down to 5 ft bgs, followed by backfilling with clean soils has been completed. Remedial actions were completed in June 2008, and ICs are required until the IC termination dates.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-05 - Contaminated Soil Around CPP-603 Settling Basin

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." The sites CPP-04 and -05 are located east of CPP-603 and were combined because they were determined to have resulted from the same release. The soil contamination resulted from unintentional sludge releases during 1978. Excavation of contaminated soils that exceeded RGs down to 5 ft bgs, followed by backfilling with clean soils was completed in June 2008. Remedial actions are complete and ICs are required until the IC termination dates.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-06 - Trench East of CPP-603 Fuel Storage Basin

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-09

**Description:** This site is classified as "No Further Action" under CERCLA. CPP-06 consists of a trench near the southern border of the INTEC, formerly used to dispose of fuel storage basin water from CPP-603. The water discharged was reported to contain radionuclides at or near background concentrations.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2033

**IC Termination Notes:** Table 10-5, Rev. 0, DOE/ID-11429

**ROD-Selected Remedy:** No further action with ICs.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-08 - CPP-603 Basin Filter System Line Failure

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." CPP-08 and CPP-09 were combined because they were determined to have resulted from failure of an underground carbon steel filter system line due to corrosion. Approximately 2,700 cubic ft of soil was contaminated with approximately 21,000-gallons of radionuclide-contaminated water from the CPP-604 basin over a 7-day period. The exact location of the leak was never determined. The leaking line section was replaced and removed from service. Site CPP-09 was identified in the FFA/CO as "soil contamination northeast corner of CPP-603 South Basin." Site CPP-08 was identified as "CPP-603 Basin Filter System Line Failure." Sites CPP-08 and -09 were combined as one site based on information gathered during preparation of the Track 2 investigation for each site. The assumed depth of contamination is 31-feet below ground surface. Remediation to the 10 ft level was completed in April 2008. RGs have been met, however institutional controls will remain until the IC Termination dates.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-09 - Soil Contamination at Northeast Corner of CPP-603 South Basin

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." CPP-08 and CPP-09 were combined because they were determined to have resulted from failure of an underground carbon steel filter system line due to corrosion. Approximately 2,700 cubic ft of soil was contaminated with approximately 21,000-gallons of radionuclide-contaminated water from the CPP-604 basin over a 7-day period. The exact location of the leak was never determined. The leaking line section was replaced and removed from service. Site CPP-09 was identified in the FFA/CO as "soil contamination northeast corner of CPP-603 South Basin". Site CPP-08 was identified as "CPP-603 Basin Filter System Line Failure." Sites CPP-08 and -09 were combined as one site based on information gathered during preparation of the Track 2 investigation for each site. The assumed depth of contamination is 31-ft below ground surface. Remediation to the 10 ft level was completed in April 2008. RGs were met. Institutional control will be maintained until the IC termination date.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-10 - CPP-603 Plastic Pipeline Break

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." This site resulted from a release of approximately 800-gallons of radionuclide-contaminated CPP-603 basin water that drained into a shielded floor area as a result of a failure of a PVC line in December 1976. Contamination is assumed to extend from ground surface to the soil-basalt interface at 34-ft below ground surface. Remediation to the 10 ft level was completed in April 2008. RGs were met. Institutional controls are required until the IC termination dates.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-11 - CPP-603 Sludge and Water Release

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." This site resulted from a release of contaminated sludge and water from CPP-603 in February 1978. The initial spill was cleaned up and soils with radiation levels greater than 1 R/hr were removed. Additional remediation was performed (to the 10 ft level) and completed in 2008 as part of the OU 3-13 Remedial Action Work Plan. RGs were met. Institutional controls are required until the IC termination dates.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-111 - Release in CPP-604 Access Corridor

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-111 is a group 2 site consisting of a damaged sump in the CPP-604 access corridor where contamination was potentially released to the environment.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

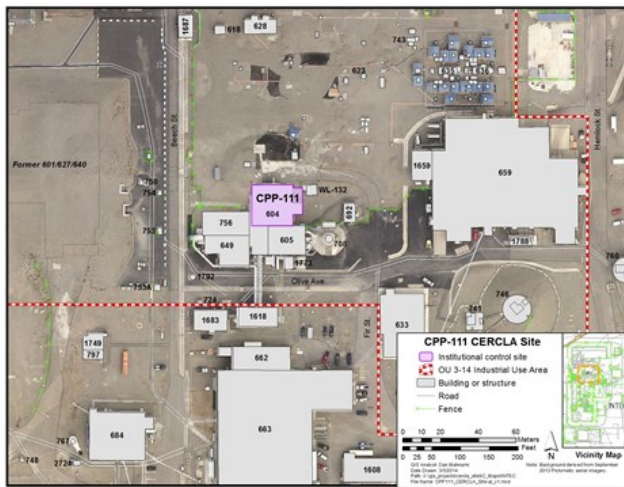
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Site will be addressed when building is demolished.

**ROD-Selected Remedy:** Deferred remedy pending D&D of buildings.

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-112 - WM-184 CPP Tank Farm Containment Vault Potential Release

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Site CPP-112 involves Tank WM-184 and the associated concrete vault, CPP-784, located in the south central portion of the INTEC Tank Farm. Approximately 2000 gallons of deionized rinse water used to wash the interior of the concrete vault was potentially released to the environment.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

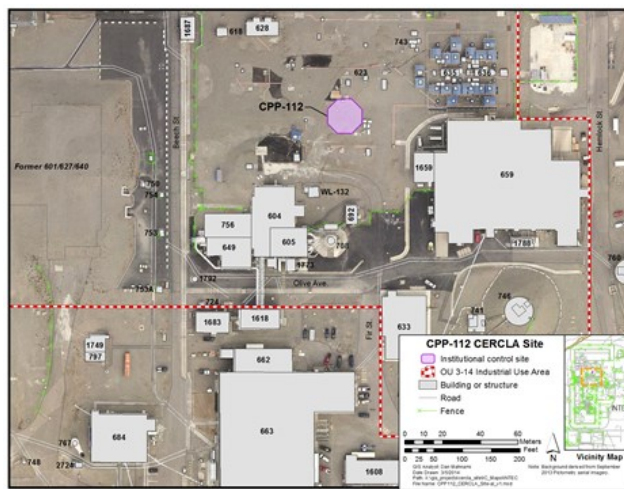
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with monitoring and ICs

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-124 - 1 1/2" PLA-2069C Leak West of CPP-750

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-124 is located in the Industrial Use Area and in the Groundwater and Drilling Institutional Control Area. This site is identified as Line 1-1/2" PLA-2069C leak west of Building CPP-750. This line is approximately 9 ft below ground.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

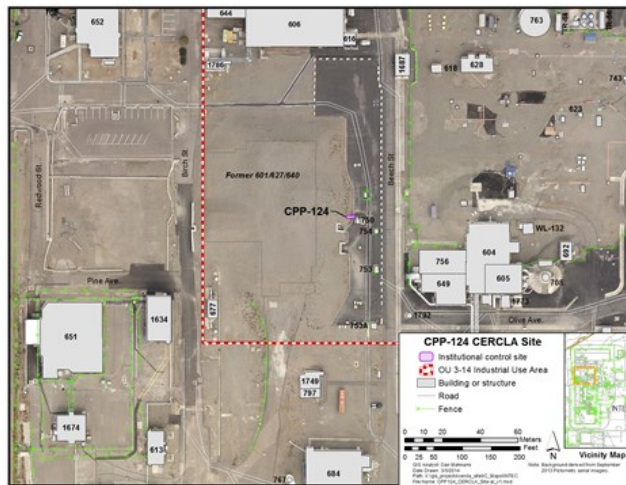
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2095

**IC Termination Notes:** > 4 ft (DOE/ID-11429, Rev. 0, Table 10-5), and DOE/ID-11402

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-13 - Pressurization of the Solid Storage Cyclone Northeast of CPP-633

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-13 resulted from the pressurization of the solid storage cyclone northeast of Building CPP-633 where calcined, high-level waste was released to the air in 1976. This site will be cleaned up under the OU 3-13 RD/RA Work Plan using the OU 3-14 remediation goals for soil in the IUA. Site is within the Industrial Use Area and subject to the same ICs.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

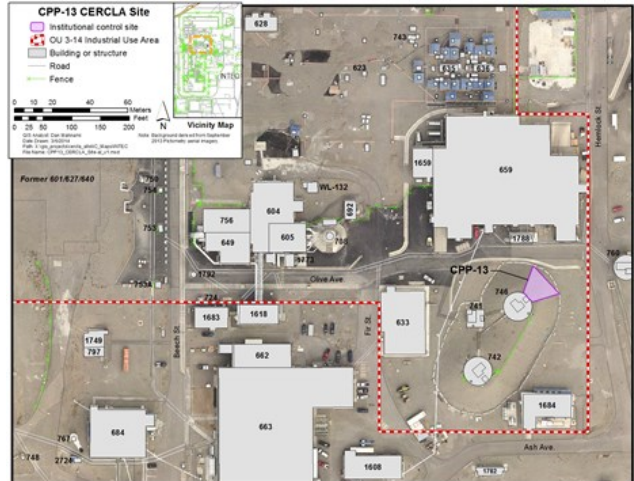
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2053

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5, and DOE/ID-11402

**ROD-Selected Remedy:** Site remediated by removal and disposal

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-135 - Soil Under CPP-603

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** CPP-135 consists of radioactively contaminated soil adjacent to the east side of building CPP-603. Contaminated soil was left in place during remedial actions around building CPP-603, to avoid compromising the integrity of the building foundation, and to avoid an active 8-inch fire water line running parallel to the building. New Site Identification form was completed in 2009.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2207

**IC Termination Notes:** 5-Yr Review (DOE/ID-11429) Table 10-5

**ROD-Selected Remedy:** Deferred remedy pending D&D of buildings

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-136 - Contaminated Soil Adjacent to the Waste Calcine Facility Cap

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Contaminated soil adjacent to the east side of the WCF cap.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

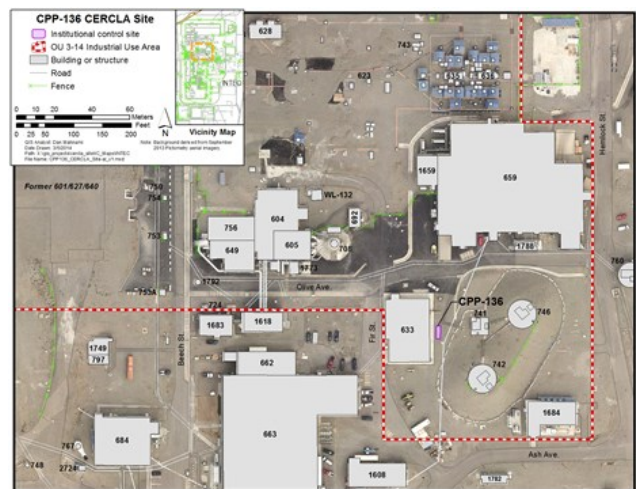
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2151

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** To be addressed with general area end-state decisions.

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-138 - Hot Soil North of CPP-633

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:**

**Description:** Radiologically contaminated soil north of CPP-633 adjacent to fire hydrant (HYD-UTI-4500)

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

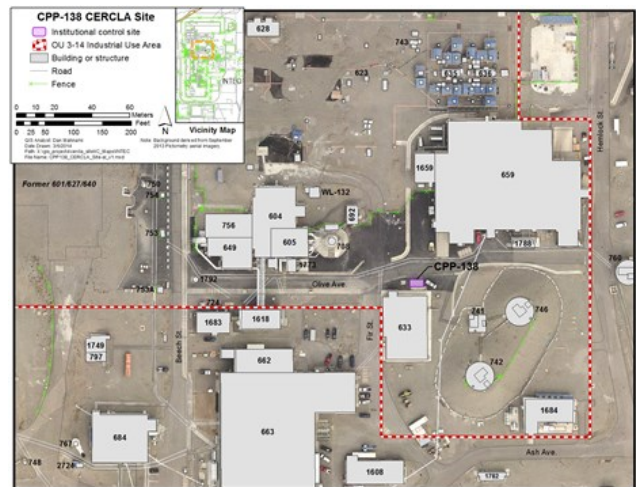
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:** IC termination date will be calculated in Part B of the NSI form. (NSI-26005)

**ROD-Selected Remedy:**

**Remediation Complete:**





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-139 - Former INTEC Buildings CPP-601, -602, -627, and -640 and earthen cap

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** CPP-139 consists of the buried remains of buildings CPP-601, CPP-602, CPP-627, and CPP-640 which contained mixed waste.

**Contaminants:**

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

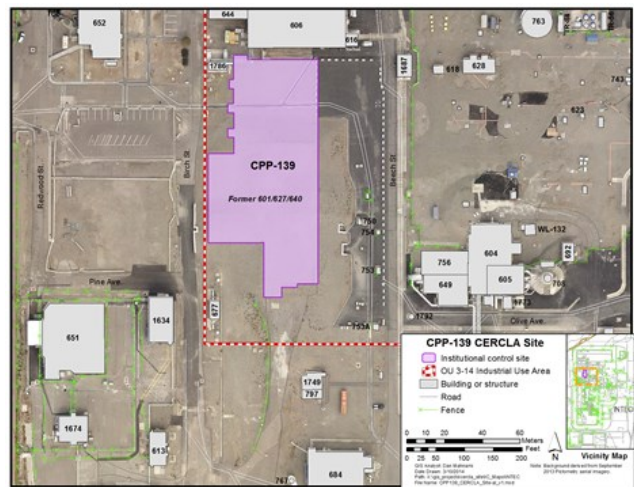
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:**

**ROD-Selected Remedy:** Deferred remedy pending D&D of buildings

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-142 - Dry shallow injection well south of IFSF (CPP-603B)

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:**

**Description:** Site CPP-142 consists of the shallow injection well south of building CPP-603. This well has currently not been assigned a IDWR well number.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

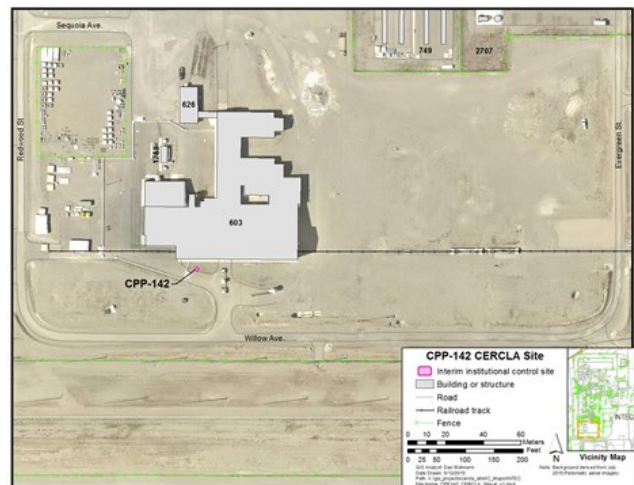
**IC Source Reference:**

**IC Termination Year:**

**IC Termination Notes:**

**ROD-Selected Remedy:**

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-15 - Solvent Burner East of CPP-605

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** The solvent burner at Site CPP-15 began operation in the late 1950s and was dismantled in 1983. Before the solvent burner, a stack preheater was located at this site. Waste solvent, primarily kerosene and tributyl phosphate degradation products contaminated with low levels of radionuclides, were held in the tank and piped to the solvent burner for disposal. Demolition of the solvent burner occurred in late 1983 including removal of the furnace/burner unit, furnace duct, control shed, piping, valves and controls within the shed, and piping penetrating the shed. In addition, an unknown amount of contaminated soil was removed along with the solvent tank. This site is currently covered with asphalt awaiting final remedy under OU 3-14 which is expected to occur in approximately 2035.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

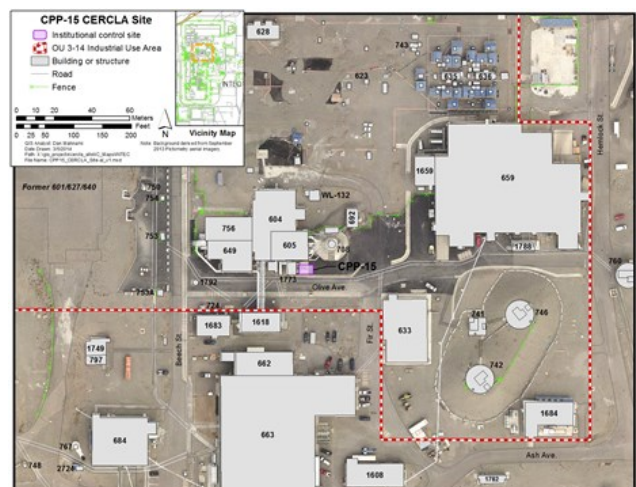
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Low permeability pavement with institutional controls

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-16 - Contaminated Soil from Leak in Line from CPP-WM-181 to PEW.

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** CPP-16 consists of soil contaminated by a single release of low-level radioactive water. The soil at the spill site was reportedly removed as part of the ICPP Radioactive Waste System Project during a valve box replacement.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with monitoring and ICs. Removal and disposal as necessary

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-17 - Soil Storage Area South of CPP Peach Bottom Fuel Storage Area

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-09

**Description:** This site is classified as "No Further Action" under CERCLA. CPP-17 consists of two areas near Building CPP-603. The sites were used for storing piles of soil, asphalt, concrete, metal debris, and other items that reportedly came from a variety of construction and maintenance activities within the INTEC. In addition, sludge and liquid generated during CPP-603 fuel storage basin maintenance activities may have been deposited in these areas, resulting in contamination of the underlying soils. The soil in CPP-17 was containerized and the area sampled for characterization. Risk to workers is acceptable, but the risk is not acceptable for unrestricted residential use at the present time. Institutional controls are required until the IC termination date.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2046

**IC Termination Notes:** CPP-17a - 2046, CPP-17b - 2020 (Table 10-5, Rev. 0, DOE/ID-11429)

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-19 - CPP-603 to CPP-604 Line Leak

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." This site resulted from a 1978 release of 2,000 gallons of radionuclide contaminated liquid that leaked from an underground waste transfer line between CPP-603 and CPP-604. The line was 5-feet below ground surface and the area of contamination was estimated to be approximately 108 square feet. The waste transfer line was abandoned in place after the leak was discovered. The area of site CPP-19 is based on the soil boring results. The zone of contamination is assumed to extend from ground surface to the soil/basalt interface. Remediation was completed to the 10 ft level in January 2008. RGs were met. Institutional controls are required until the IC termination dates.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

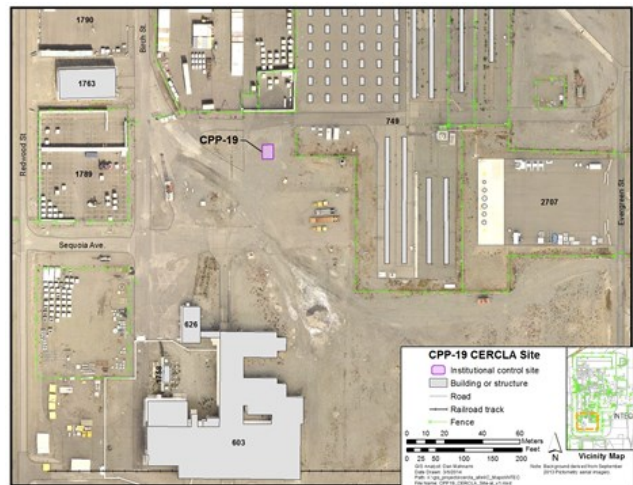
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2431

**IC Termination Notes:** Surface ICs are no longer required, 0-10 ft (2074), 10-13 ft (2431)

**ROD-Selected Remedy:** Site remediated by removal and disposal.

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-20 - CPP-604 Radioactive Waste Unloading Area

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** CPP-20 is the location of the Radioactive Waste Unloading Area north of building CPP-604. Waste from INEEL facilities were transported to the unloading area at the ICPP where it was unloaded at this location via transfer hoses. The liquids were transferred to an underground storage tank before concentration in the PEW Evaporator. It is known that the liquid contained radioactive contaminants and was required to have a pH of less than 2. Occasional spills occurred during the unloading process as a result of leaks in the hoses. The entire area was excavated in 1982 and 1983-1984 during Phase 1 and 2 of the Fuel Processing Facility Upgrade Project.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

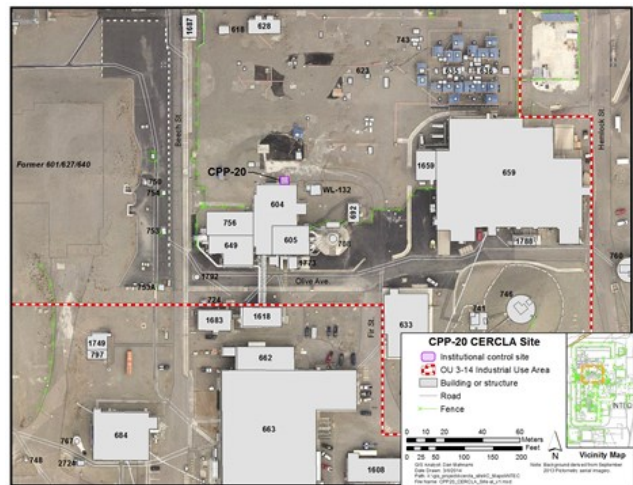
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with monitoring and ICs; removal and disposal as necessary

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-22 - Particulate Air Release South of CPP-603

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-09

**Description:** This site is classified as "No Further Action" under CERCLA. Site CPP-22 is the location of surface contamination associated with a 1958 air release that resulted from the failure of a HEPA filter in the fuel element cutting facility.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

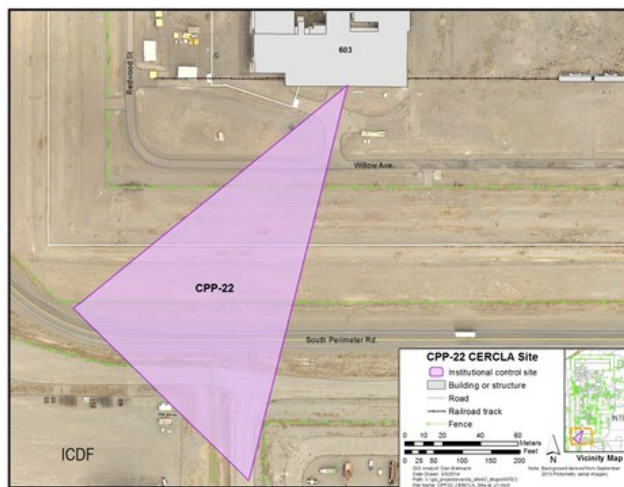
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2034

**IC Termination Notes:** Table 10-5, Rev. 0, DOE/ID-11429

**ROD-Selected Remedy:** No further action.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-24 - CPP Tank Farm Area Bucket Spill

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Site CPP-24 is located in the Tank Farm and consists of an area of approximately 1.7 m<sup>2</sup> (18 ft<sup>2</sup>). In 1954, approximately 38 L (1 gal) of radioactively-contaminated solution was spilled from a bucket onto the ground while work was being conducted at Tank WM-180.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

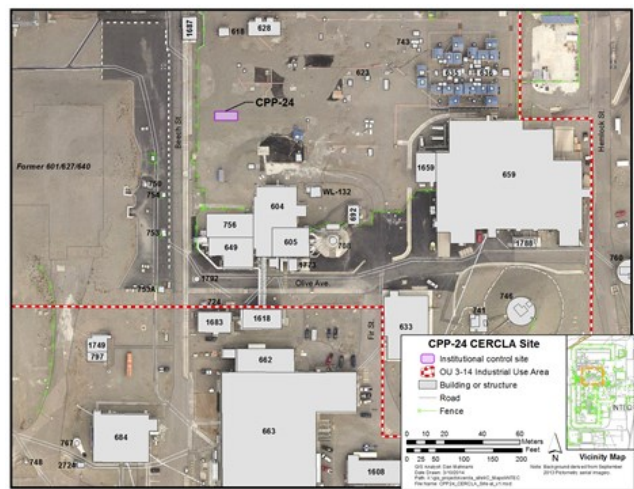
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with monitoring and ICs with removal and disposal as necessary

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-25 - Contaminated Soil in Tank Farm Area North of CPP-604

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Site CPP-25 is the location of a ruptured transfer line that released an unknown quantity of liquid waste adjacent to the north side of building CPP-604. Line rupture occurred on August 28, 1960. Approximately 7 m<sup>3</sup> (9 yd<sup>3</sup>) of contaminated soil was removed and taken to the RWMC for disposal. During 1981 and 1983 the entire site was excavated during Phases I and II of the Fuel Processing Facility Upgrade Project. This excavation included the eastern portion of sites CPP-20 and CPP-25. Fill materials placed back into the excavation consisted of 3 mR material in the bottom of the excavation and clean soils in the upper 9.1 m (30 ft).

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

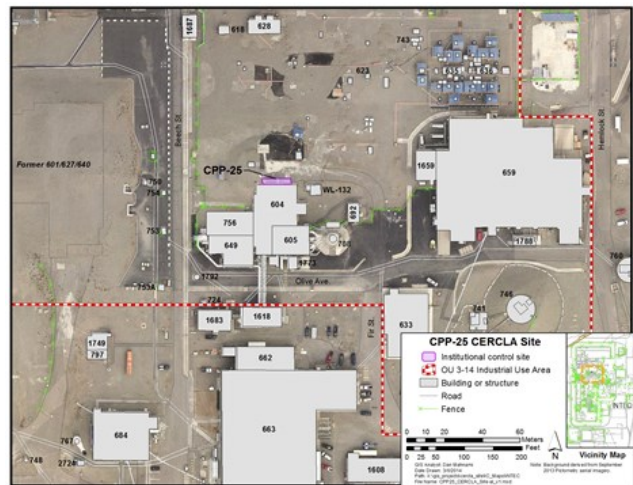
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary.

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-26 - Contaminated Soil in Tank Farm Area from Steam Flushing Operation

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** CPP-26 consists of soil potentially contaminated by a 1964 release of radioactive steam. The release is assumed to have contaminated the land surface of approximately 13 acres to the northeast of building CPP-635. However, the volume of released steam is unknown.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

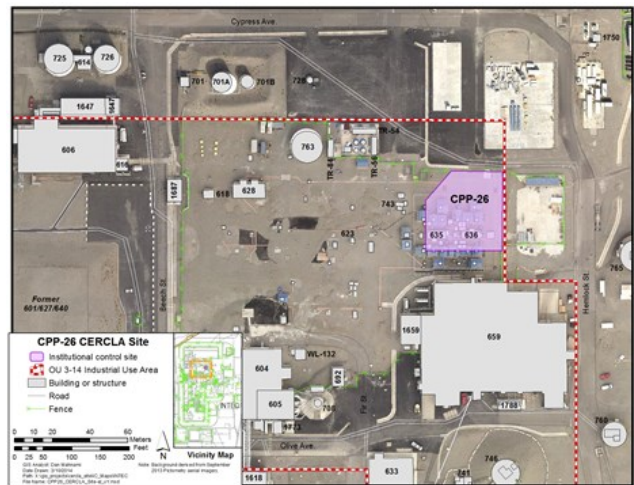
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-27 - Contaminated Soil in the Tank Farm Area East of CPP-604

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Sites CPP-27 and CPP-33 consist of contaminated soil associated with subsurface releases of HLLW from the Tank Farm transfer system near the northeast corner of building CPP-604. These sites were determined to be related to releases from the same source and, therefore, are being addressed as a single release site. Following cleanup, it was estimated that 25 mCi of radioactivity in soil remained in place. In 1983, additional contaminated soil was discovered. This additional contamination, thought to be the result of a separate release from the same transfer line, was designated CPP-33.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

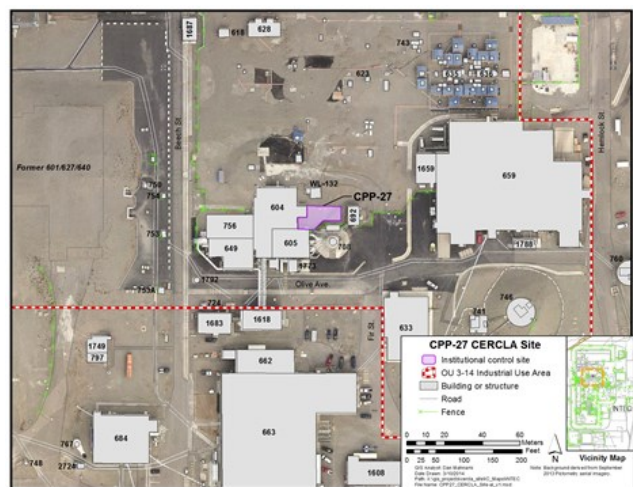
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-28 - Contaminated Soil in Tank Farm Area South of WM-181 by Valve Box A-6

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Site CPP-28 consists of contaminated soil resulting from a leak in a HLLW stainless steel pipe. In late 1974, approximately 45 m3 (56 yd3) of contaminated soil having an estimated 3,000 Ci of gross radioactivity was removed from the area above the pipeline leak. No contaminated soil was removed from below the pipe encasement due to high levels of radioactivity in the soil. The excavated area was subsequently backfilled.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

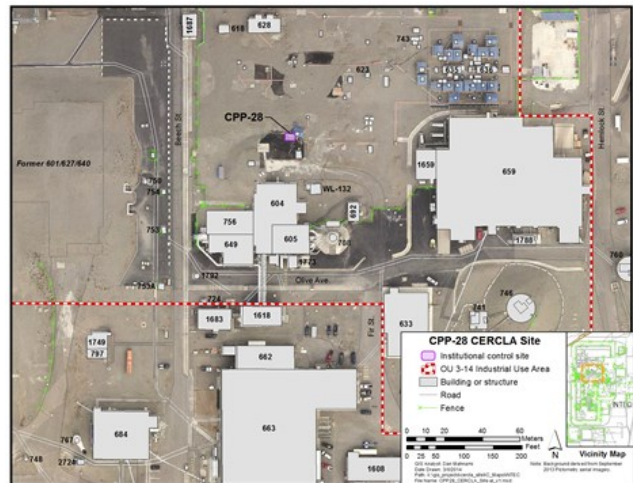
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-30 - Contaminated Soil in Tank Farm Area Near Valve Box B-9

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** CPP-30 was a 6 x 6 m (20 x 20 ft) area of surface soil contamination near Tank Farm Valve Box B-9. The contaminated soil was removed and disposed at the Radioactive Waste Management Complex (RWMC). Site is encompassed within CPP-96, which is within the Industrial Use Area and subject to the same ICs.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

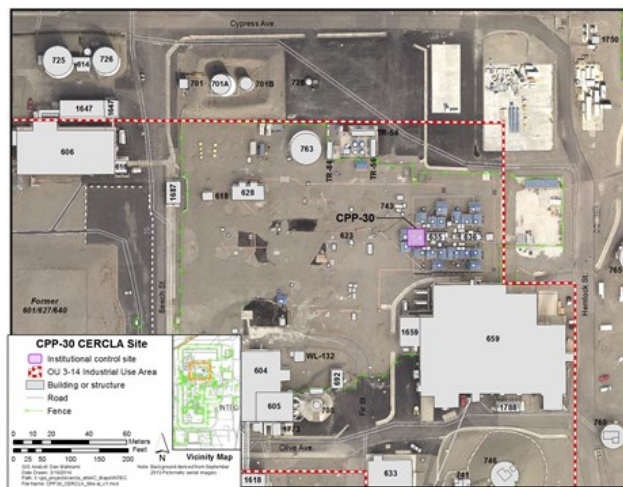
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-31 - Contaminated Soil in Tank Farm Area South of Tank WM-183

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** CPP-31 consists of High Level (Radioactive) Liquid Waste released to the surrounding soil during a transfer between tanks WM-181 and WM-180. The This transfer line is located about 2 ft below grade.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

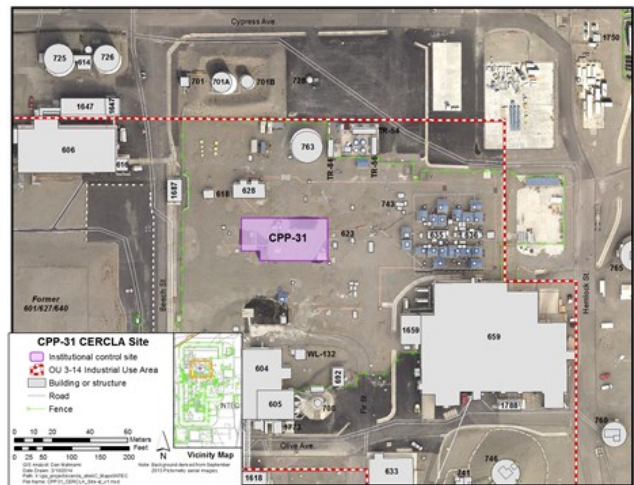
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary.

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-32 - Contaminated soil in Tank Farm area SW and NW of Valve Box B-4

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Site CPP-32 consists of two soil contamination areas. One is located southwest of valve box B-4. The other is located about 15 m (50 ft) northwest of valve box B-4.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

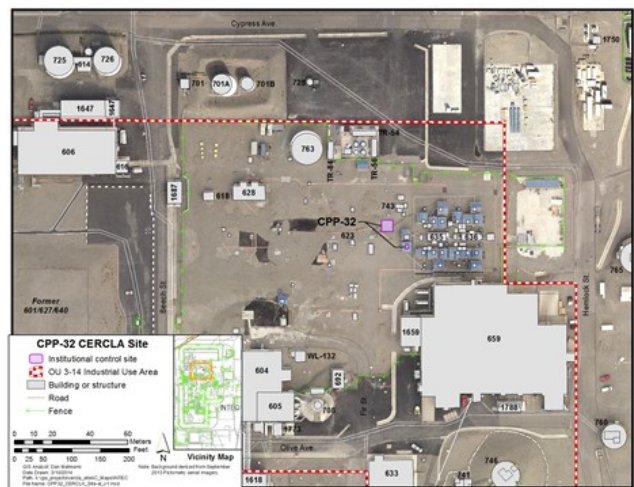
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary.

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-33 - Contaminated Soil in the Tank Farm Area Near WL-102 NE of CPP-604

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Sites CPP-27 and CPP-33 consist of contaminated soil associated with subsurface releases of HLLW from the Tank Farm transfer system near the northeast corner of building CPP-604. These sites were determined to be related to releases from the same source and, therefore, are being addressed as a single release site. Following cleanup, it was estimated that 25 mCi of radioactivity in soil remained in place. In 1983, additional contaminated soil was discovered. This additional contamination, thought to be the result of a separate release from the same transfer line, was designated CPP-33.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

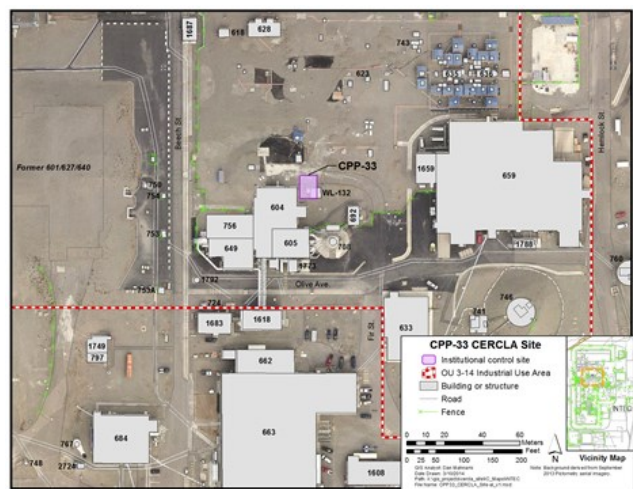
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary.

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-35 - CPP-633 Decontamination Spill

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-35 is the result of a release of decontamination solution through the air transport system during the decontamination operation of calcine vessel WC-102 on May 16, 1972.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

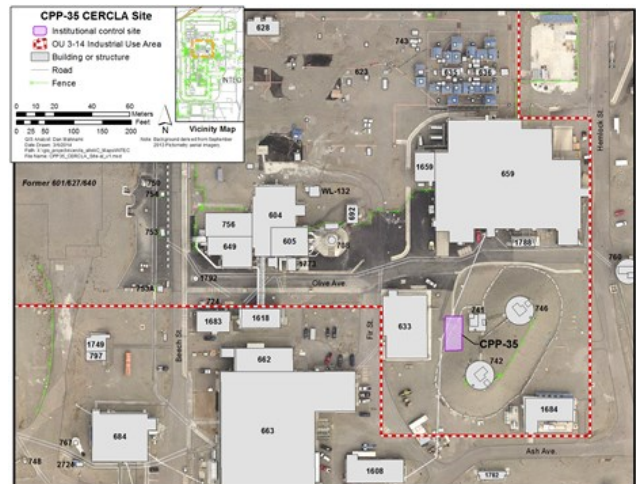
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2080

**IC Termination Notes:** 0-5 ft (2031), 4-5 ft (2080), DOE/ID-11429, Rev. 0, Table 10-5, Table C-6

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-36 - Transfer Line Leak from CPP-633 to WL-102

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** CPP-36 consists of releases from the WCF transfer line on four occasions.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

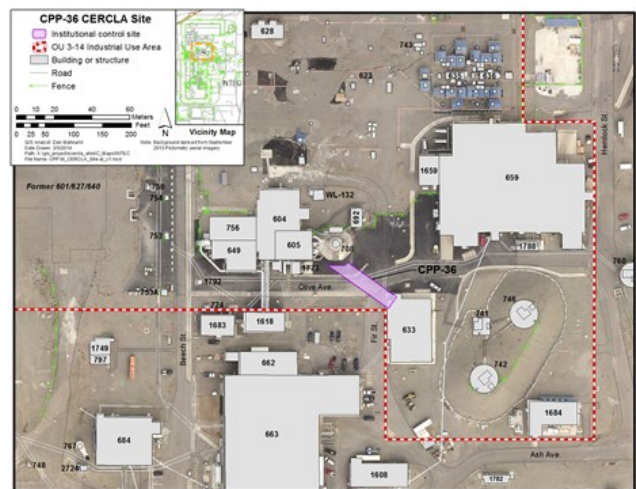
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2214

**IC Termination Notes:** 0-4 ft (2085), >4 ft (2214), DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No further action with ICs.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-37B - Gravel Pit and Debris Landfill Inside INTEC Fence

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." Site CPP-37B is located inside the current security fence at INTEC. Prior to 1982, this pit was often used for the disposal of waters released from the sludge dewatering pit of the old sewage treatment plant. No remediation was conducted on Site CPP-37B during the OU 3-13 Phase I Remedial Action. Hazardous constituents identified through sampling do not exist in sufficient concentration or activity to warrant remediation. Site CPP-37B is now considered a No Further Action site.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Fencing requirements  
Long-Term Stewardship Tracking System  
Marker requirements  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

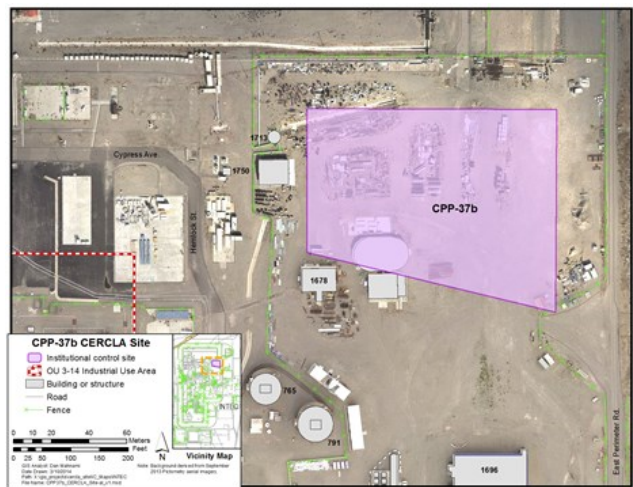
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2014

**IC Termination Notes:** DOE/ID-11429 (Rev. 0, Table 10-5)

**ROD-Selected Remedy:** No further actions with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-37C - Contamination Southeast of CERCLA Site CPP-37B

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Contamination discovered southeast of CERCLA Site CPP-37B. CPP-37C was not identified in the 3-13 ROD; it was established in 2002 after contamination was discovered in Nov. 2000 southeast of CPP-37B while digging a trench along the fence.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

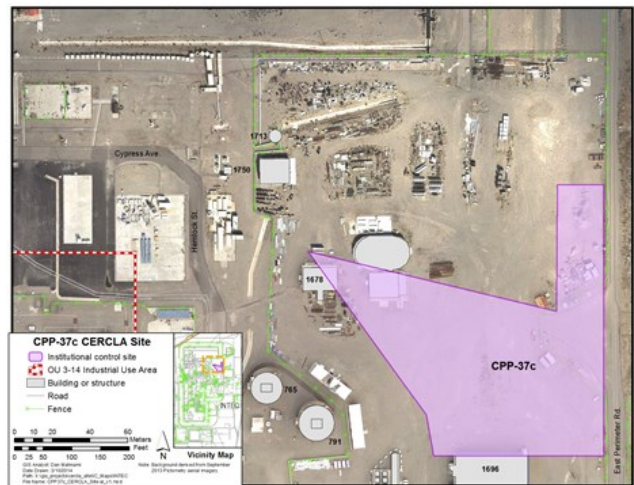
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2056

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-48 - French Drain South of CPP-633

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This site is classified as Group 3, "Other Surface Soils." Site CPP-48 was an excess chemical dump tank south of the old WCF (CPP-633) that was used as a french drain from 1975 to 1981. The bottomless dump tank was removed in 1993 and soil samples were collected at the bottom of the dump tank excavation. Analysis for radionuclide contamination indicated a maximum Cs-137 concentration of 65 pCi/g at 3.7 m (12-foot) below ground level. This site has been designated as a No Further Action Site with Institutional Controls under the OU 3-13 Group 3 Phase II Workplan.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

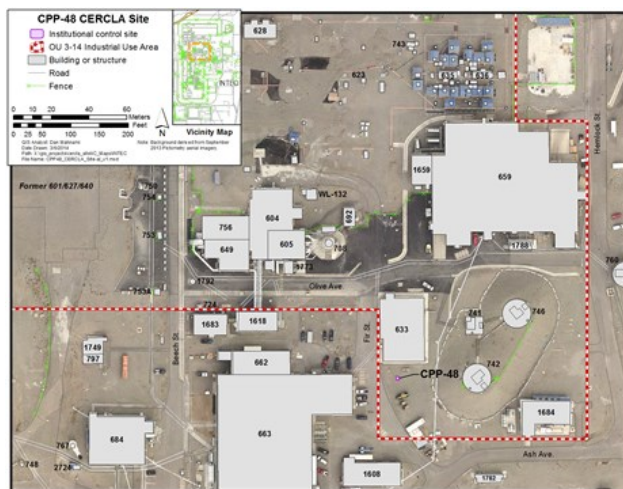
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2065

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-58 - CPP-PEW Evaporator Overhead Pipeline Spills

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** The site was contaminated by three leaks of service wastewater, at 6 ft bgs, and a nitric acid spill. The volume is estimated at 1,000 gal. CPP-58 contains sites that were referred to in earlier documents as CPP-58A (also known as CPP-58E), CPP-58B and newly identified sites in the area. Contamination is estimated to be present from 6 to 46 ft below grade. Excavations during 2003 adjacent to CPP-58B uncovered other areas of contamination. The boundaries of CPP-58 have been redefined to encompass CPP-58A, CPP-58B and the additional contaminated soil. Remedial actions will be implemented under the OU 3-14 Workplan (approximately 2035).

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

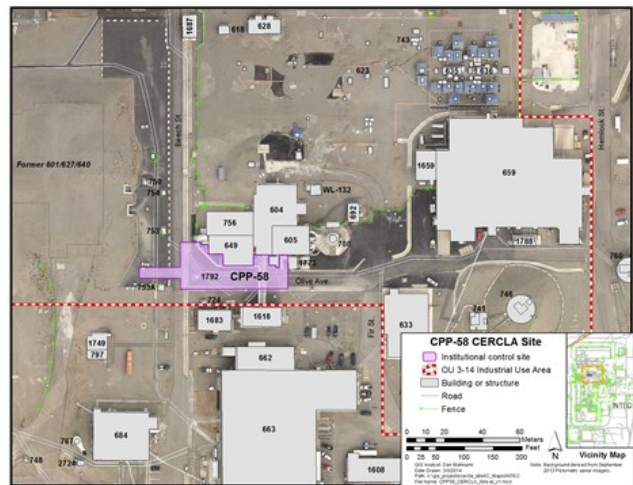
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Low-permeability pavement with ICs

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-58W - Service Waste Line Leak Inside Tank Farm Between CPP-601 and CPP-604

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Site CPP-58W is located in the yard about halfway between Buildings CPP-601 and CPP-604, due east of CPP-709. It is located within the boundaries of CPP-96, the Industrial Use Area and the Drilling and Groundwater Institutional Control Area. Previous OU 3-13 documents incorrectly identified the location of CPP-58W, outside the tank farm boundary. Site CPP-58W was contaminated in August 1954 by a leak from a concrete pipe, 6–8 ft bgs, which contained CPP-604 service wastewater. The service wastewater included slightly contaminated PEW evaporator condensate. The maximum amount of waste that leaked was estimated to be 1,000 gallons or less, and contained approximately 40 mCi of activity. This site was disturbed when the leaking portion of the pipe was replaced by iron pipe but no documentation was found describing the cleanup.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

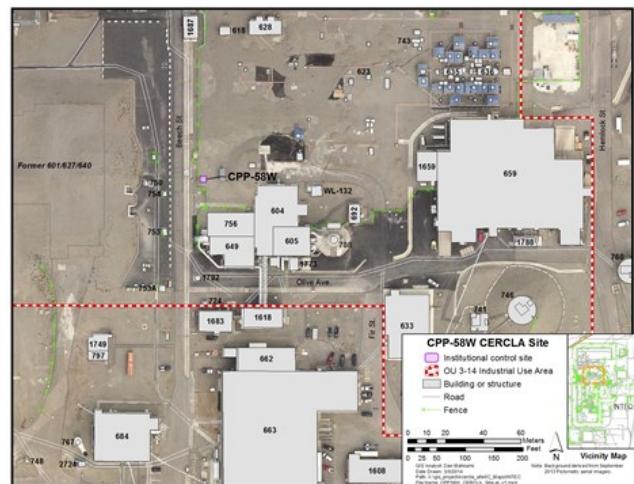
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs, monitoring, and removal and disposal as necessary

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-61 - PCB Spill in CPP-718 Transformer Yard

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-61, is located within former CPP-718 transformer yard northwest of building CPP-613. The original transformer base and contaminated soils were removed prior to discovery of site CPP-61. Site CPP-61 is a 25 x 25-ft oil spill contaminated with polychlorinated biphenyl (PCB) that occurred in the early 1980s. One sample collected in 1985 indicated that PCBs may be above the hazard index at one location, below 6-ft.

**Contaminants:** PCB

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

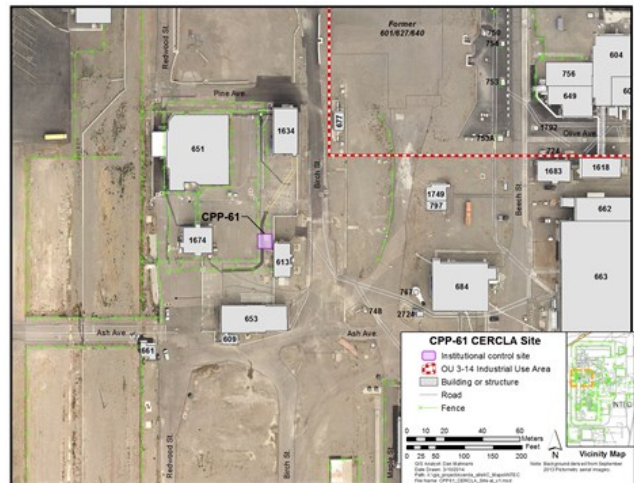
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite (Table 10-5, Rev. 0, DOE/ID-11429)

**ROD-Selected Remedy:** No further action with ICs. Petroleum contamination will require ICs to remain indefinitely.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-69 - Abandoned Liquid Radioactive Waste Storage Tank CPP VES-SFE-20

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** This is a Group 7 site, "Stored Fuel Exterior - 20 Hot Waste Tank System." Investigation conducted in 1984 indicated that the tank liquid and sludge contain elevated levels of Cs-137, Cs-134, Sr-90 and isotopes europium, plutonium, and uranium. Previous spills within the tank vault and pump pit contained similar contaminants. At Site CPP-69, soil contamination is associated with CPP-VES-SFE-20. Remediation was completed in 2009 as part of the OU 3-13 Remediation Work Plan.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2223

**IC Termination Notes:** 0-10 ft bgs - 2019, 10-21 ft bgs - 2223 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Removal and disposal

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-79 - Tank Farm Release Near Valve Box A-2

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** CPP-79 is defined as soil contaminated by the releases of waste solutions in July and August of 1986 due to an obstruction in a transfer line. A second, deeper zone of contamination at this site is believed to be related to the release of HLLW at site CPP-28. Remedial action will be performed under the OU 3-14 Workplan (approximately 2035).

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

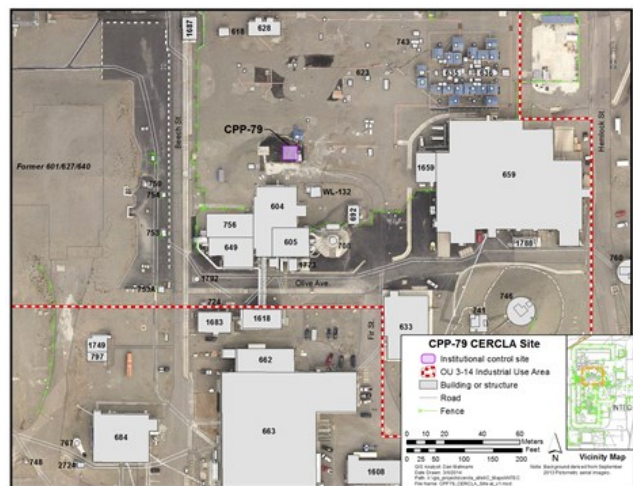
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs and removal and disposal as necessary

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-83 - The Entire Perched Water System at INTEC

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** This is OU 3-13, Group 4, "Perched Water." Contaminated perched water occurs at depths ranging between 100 ft and 420 ft below INTEC. The perched water does not pose a direct human health threat because it is not currently used for consumption. In the absence of man-made recharge, the perched water zones are not sufficiently productive to sustain permanent residence. However, the site does pose a threat as a pathway for contaminant transport to the underlying Snake River Plain Aquifer.

**Contaminants:** Sr-90

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

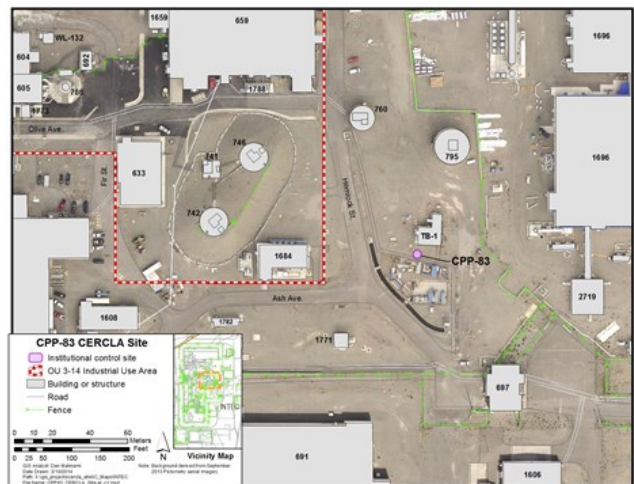
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2416

**IC Termination Notes:** 2416 (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Institutional controls with aquifer recharge control. OU 3-13 ROD, section 11.1.4

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-85 - CPP-633 Blower Corridor

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-85 is the WCF blower corridor, which was used to vent gases from the WCF hot cells to the blower pit and subsequent HEPA filtration prior to atmospheric discharge. The Blower Corridor has been closed in place as part of the Waste Calcine Facility. The building is assumed to be providing containment of the contamination.

**Contaminants:** Am-241, Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

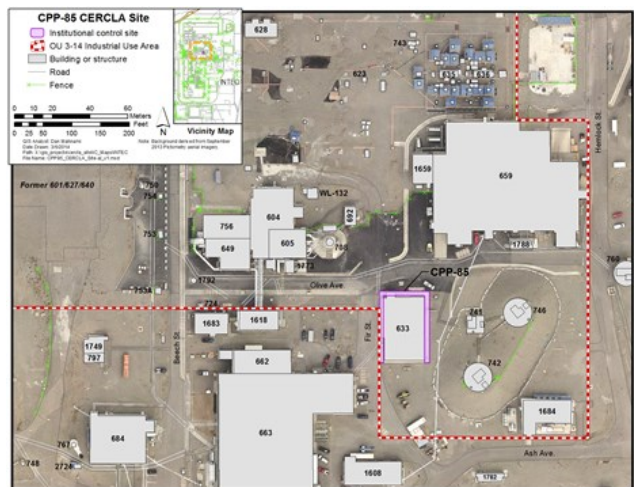
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Site will be addressed when building is demolished.

**ROD-Selected Remedy:** Site was grouted under RCRA closure plan for Waste Calcining Facility

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-87 - CPP-604 Waste VOG Blower Core

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** CPP-87 and CPP-89 consist of contaminated soil encountered while excavating an emergency fire exit from the basement area of Building CPP-604 and CPP-605. The excavation included an area immediately south of CPP-604, as well as beneath the building. Contaminated soil adjacent to two deteriorated carbon steel pipes was excavated.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

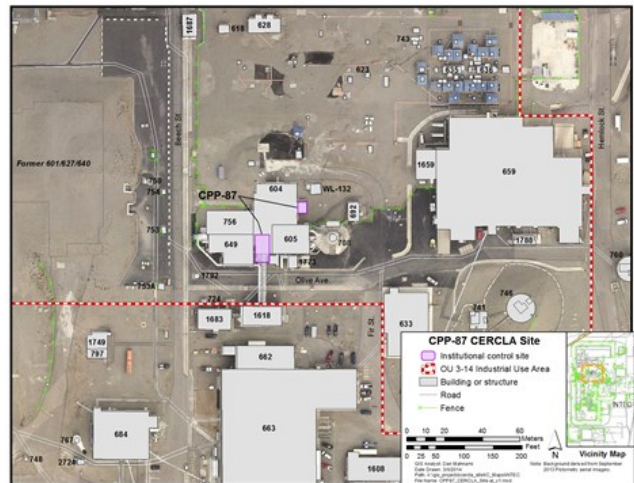
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Site will be addressed when building is demolished.

**ROD-Selected Remedy:** Deferred remedy pending D&D of buildings

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-88 - Radiologically Contaminated Soil

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-88 consists of the potentially radioactively-contaminated soils within the current INTEC security fence.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

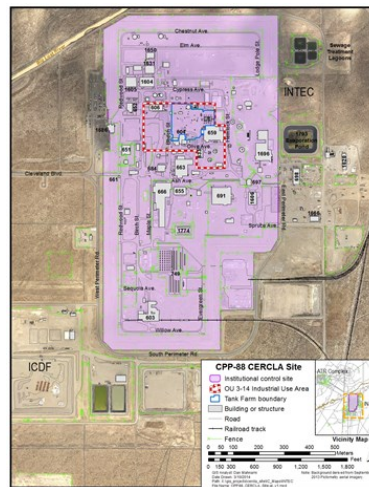
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2025

**IC Termination Notes:** Table 10-5, Rev. 0, DOE/ID-11429

**ROD-Selected Remedy:** No further action.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-89 - CPP-604/605 Tunnel Excavation

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** CPP-87 and CPP-89 consist of contaminated soil encountered while excavating an emergency fire exit from the basement area of Building CPP-604 and CPP-605. The excavation included an area immediately south of CPP-604, as well as beneath the building. Contaminated soil adjacent to two deteriorated carbon steel pipes was excavated as part of the piping removal.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

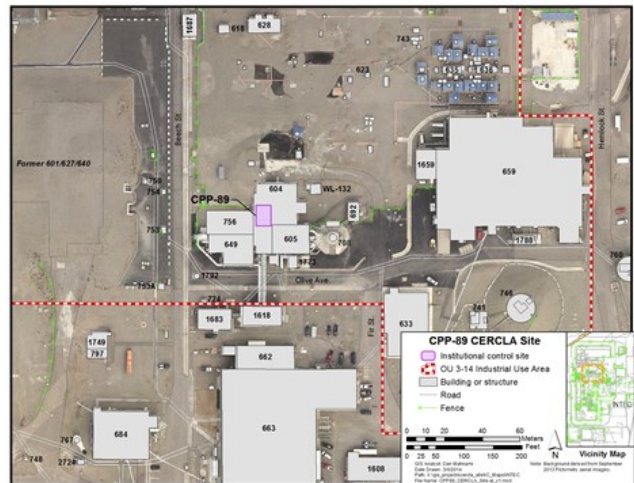
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Site will be addressed when building is demolished.

**ROD-Selected Remedy:** Deferred remedy pending D&D if buildings

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-91 - CPP-633 Blower Pit

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** Site CPP-91 consists of soil potentially contaminated by discharges from the drain at the base of a blower pit located on the north side of the WCF (CPP-633). Site CPP-36 has been extended to the southeast to incorporate Site CPP-91 because investigative results indicate contamination at CPP-91 is indistinguishable from CPP-36.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

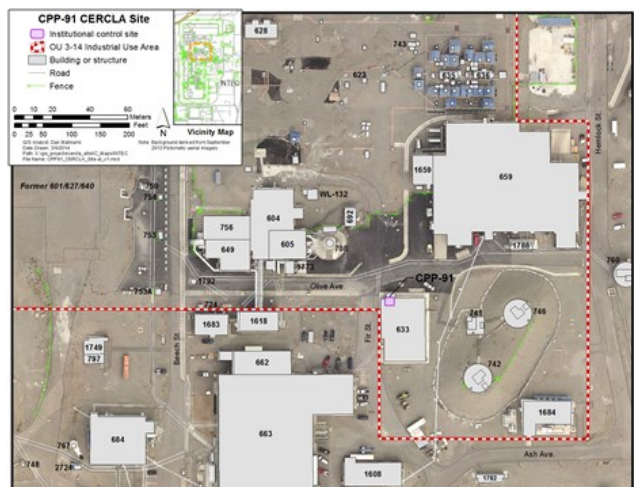
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2214

**IC Termination Notes:** 0-4 ft (2085), >4 ft (2214), DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No further actions with ICs

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-95 - ICPP Windblown Area

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-13

**Description:** ICPP Windblown Area (Airborne Plume) is classified as "No Further Action" under CERCLA. CPP-95 consists of areas outside the current INTEC perimeter fence that are potentially contaminated as a result of wind dispersion of radionuclides from facility operations.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

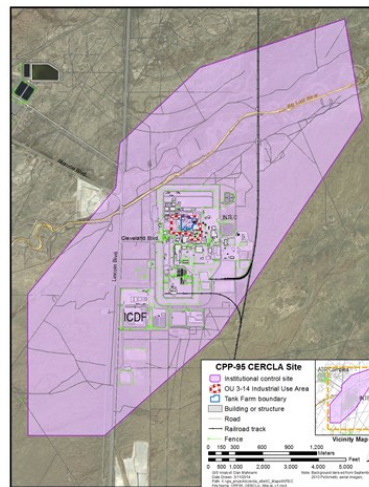
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2021

**IC Termination Notes:** Table 10-5, Rev. 0, DOE/ID-11429

**ROD-Selected Remedy:** No further action.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: CPP-96 - Tank Farm Interstitial Soils

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** Site CPP-96 is a consolidation of previously defined Tank Farm Soils release sites and the intervening Tank Farm interstitial soils that were not previously identified as release sites. CPP-96 encompasses CPP-16, 20, 24, 25, 26, 27, 28, 30, 31, 32, 33, 58W, 79, and 112, and the part of CPP-26 within the tank farm fence. CPP-58 and CPP-15 are part of CPP-96 but are located south of the Tank Farm fence.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

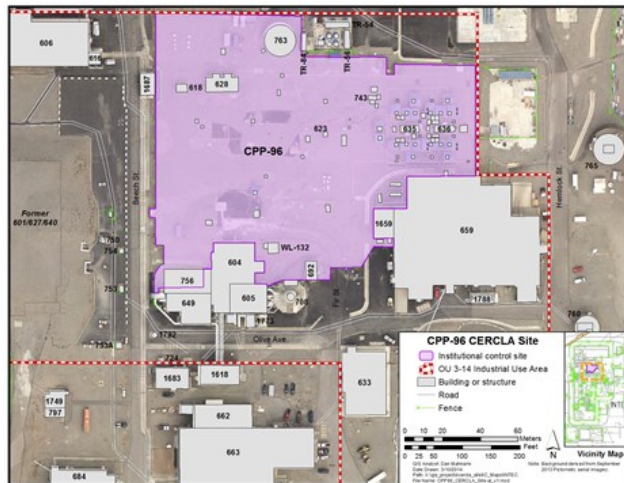
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (Table 10-5, Rev. 0, DOE/ID-11429). Date will be determined when final action is implemented.

**ROD-Selected Remedy:** Containment with ICs, monitoring, removal and disposal as necessary

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: WAG 3 GW and Drilling IC Area - WAG 3 Groundwater and Drilling IC Area

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** This is not a specific CERCLA site, rather it is an institutionally controlled area as identified in the OU 3-14 ROD, (illustrated in Figure 5-6). The boundary of the drilling and groundwater institutional control has been conservatively estimated to include those areas where groundwater could be expected to approach, or exceed MCLs for Sr-90, Tc-99, I-129, and nitrate. Through the use of the ongoing review process for the IC plan and the CERCLA 5-year reviews, this boundary will be adjusted, as necessary, to ensure that the areas where groundwater exceeds MCLs due to INTEC releases are included in this restricted area. The site extends from the north INTEC facility line to  $\frac{3}{4}$  of a mile down gradient of INTEC.

**Contaminants:** I-129, Nitrate as Nitrogen, Sr-90, Tc-99

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

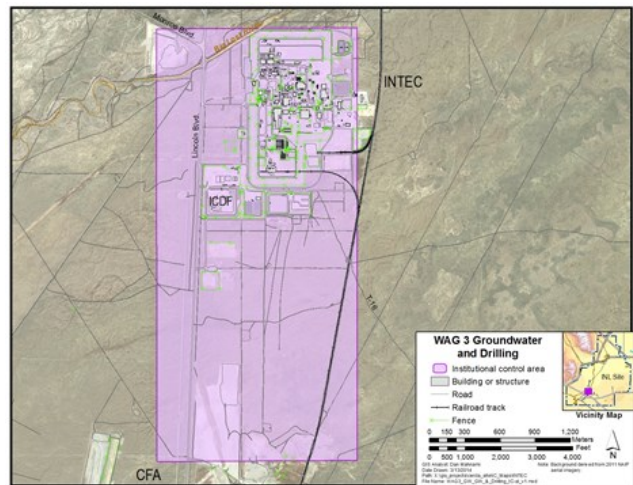
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2095

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No action with ICs

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 3: WAG 3 Industrial Use Area - WAG 3 Industrial Use Area

**Physical WAG:** WAG 3 - INTEC

**Administrative WAG/OU:** WAG 3: OU 03-14

**Description:** The Industrial Use Area is an area at INTEC that contains both OU 3-13 and OU 3-14 sites. This area consists of the Tank Farm Facility as well as adjacent areas where the agencies agreed that residential use is not anticipated as a reasonable future use. This area is therefore designated for industrial future land use only. The current boundaries of this area are depicted in Figure 4-2 (DOE/ID-11296).

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

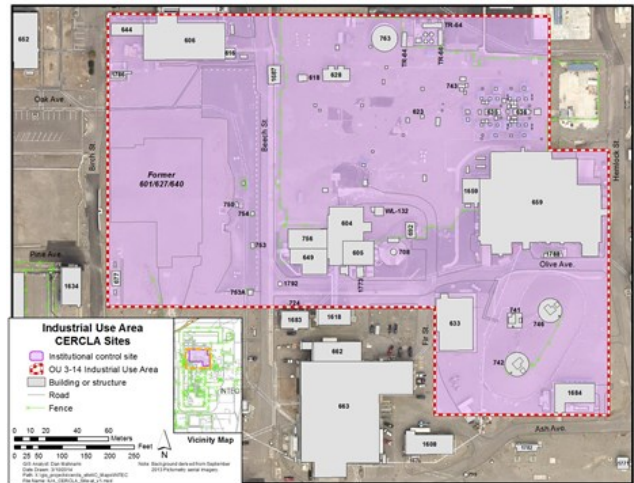
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminant (DOE/ID-11429, Table 10-5)

**ROD-Selected Remedy:** Infiltration controls.

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-01 - CFA Landfill I

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 4: OU 04-12

**Description:** CFA Landfill I occupies an area of approximately 8.25 acres. This landfill is composed of three major units, commonly referred to as the rubble landfill, the western waste trench, and the northern waste trench. The landfill was mainly filled with construction and demolition debris such as wood scraps, concrete rubble and scrap metal, and with cafeteria garbage.

**Contaminants:** Asbestos

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

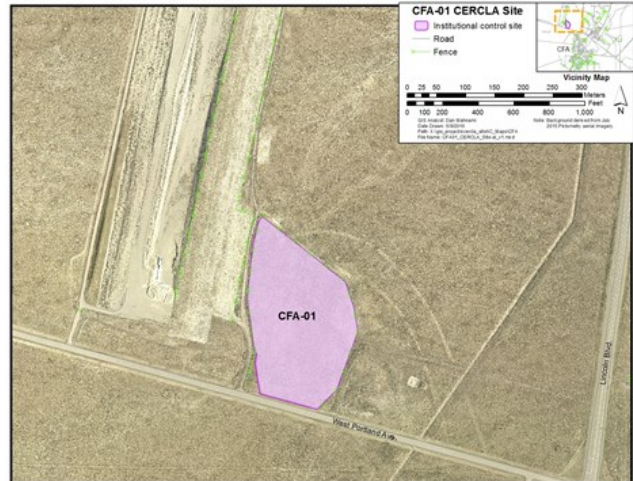
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** Native soil cover

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-02 - CFA Landfill II

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 4: OU 04-12

**Description:** Uniform containment with native soil cover, institutional controls, and monitoring (Section 9.1 of the OU 4-12 ROD...document 10146).

**Contaminants:** Asbestos

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

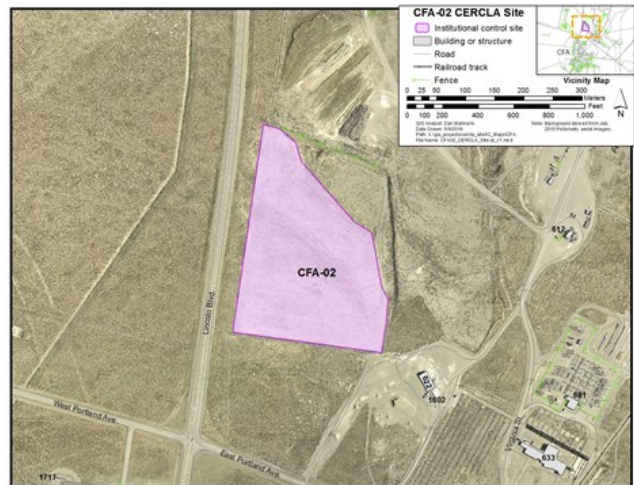
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** Native soil cover

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-03 - CFA Landfill III

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 4: OU 04-12

**Description:** CFA-03, Landfill III, covers approximately 12 acres. This landfill contains trash, cafeteria garbage, wood, masonry, scrap metal, gravel, asphalt, asbestos, and various chemicals. It was in use from 182 through 1984

**Contaminants:** Asbestos

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

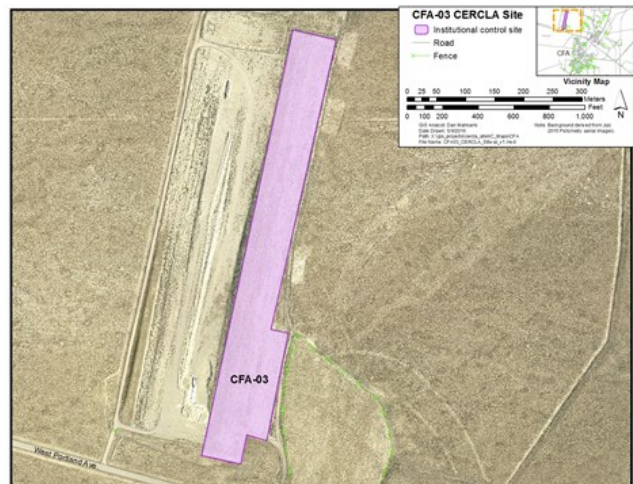
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** Native soil cover

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-07 - CFA French Drain East of CFA-633

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 4: OU 04-07

**Description:** CFA-07 consists of two french drains, located southeast of building CFA-633, that received laboratory wastewater from 1951 to 1984. Waste typically consisted of acids and bases with low levels of radioactivity. The drains that received the acids and bases were unlined, concrete-block cylinders approximately 4 ft. in diameter and 8-ft deep closed at the surface. The drains have been removed, but potential contamination remains below 10-ft.

**Contaminants:** Ag-108m, Cs-137, Lead, Pu-238

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

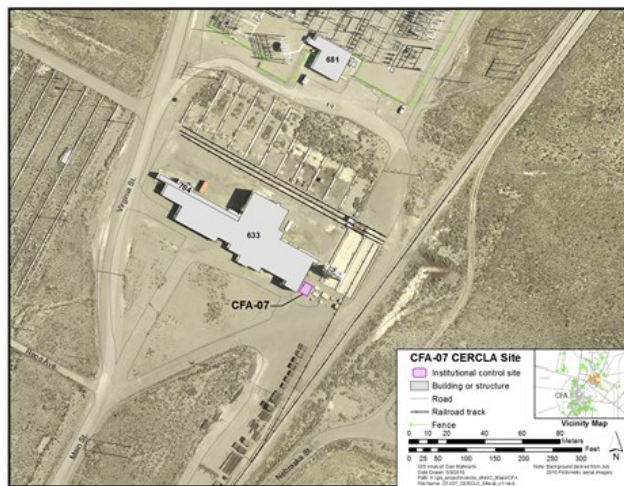
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action and institutional controls. OU 4-13 ROD section 4.2 (DOE/ID-10719)

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-08 - CFA Sewage Plant, Septic Tank, and Drainfield

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 4: OU 04-08

**Description:** CFA-08 consists of the CFA Sewage Plant drainfield, the Sewage Plant building (CFA-691) and the septic tank (CFA-716) inside the Sewage Plant. The Sewage Plant building and septic tank do not pose an unacceptable risk to human health or the environment. However, the drain field retains ICs. It is covered with an engineered evapo-transpiration soil cover designed to prevent human exposure to radioactivity.

**Contaminants:** Cs-137

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

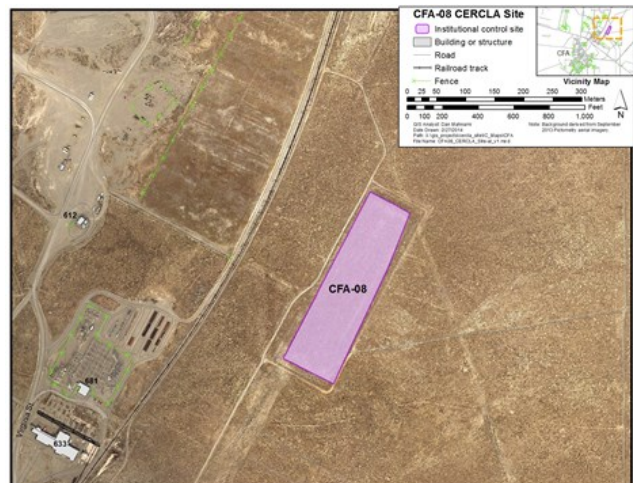
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2114

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** Engineered cover, ICs and O&M required

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-11 - CFA French Drain North of CFA-633

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** CFA-11 consists of a french drain located north of building CFA-633 with a reported 5 inch artillery shell in the bottom. The site is physically located within the boundary of site ORD-03.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

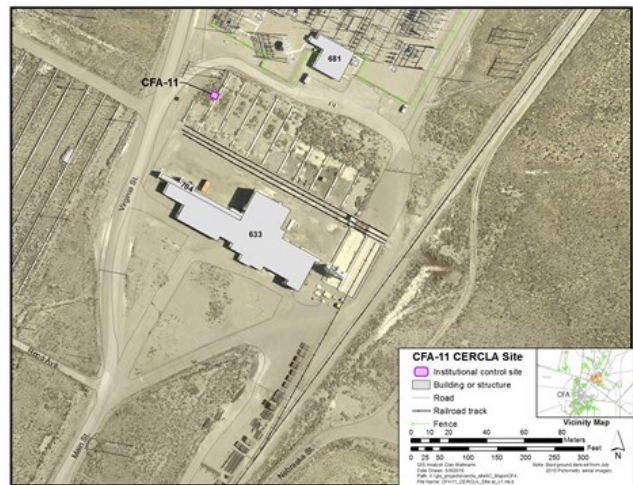
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:**

**ROD-Selected Remedy:** NSI-26015 assigned site to OU 10-04 to be managed as an MEC affected site

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-55 - Mercury Contaminated Clay Pipe Beneath CFA-674

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 10: OU 10-08

**Description:** 6 inch clay pipe beneath Bldg CFA-674.

**Contaminants:** Mercury

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate

**ROD-Selected Remedy:** Deferred remedy pending D&D of CFA-674

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: CFA-56 - Storm Water Injection Well, CFA Disposal Well

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:**

**Description:** Site CFA-56 consists of the location of the storm water injection well

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

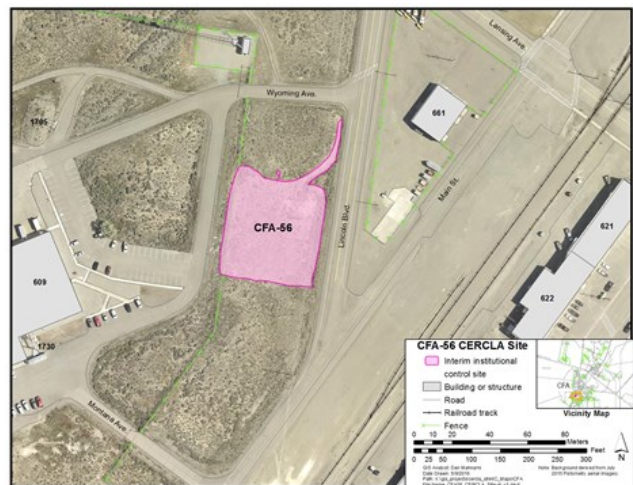
**IC Source Reference:**

**IC Termination Year:**

**IC Termination Notes:**

**ROD-Selected Remedy:**

**Remediation Complete:**





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 4: WAG 4 GW and Drilling IC Area - WAG 4 Groundwater and Drilling IC Area

**Physical WAG:** WAG 4 - CFA

**Administrative WAG/OU:** WAG 4: OU 04-13

**Description:** This is not a specific CERCLA site, rather it is an institutionally controlled area. The location of the restricted area is illustrated on the map below. The boundary of the drilling and groundwater institutional control has been conservatively estimated to include those areas where groundwater could be expected to approach, or exceed MCLs. Through the use of the ongoing review process for the IC plan and the CERCLA 5-year reviews, this boundary will be adjusted, as necessary, to ensure that the areas where groundwater exceeds MCLs are included in this restricted area.

**Contaminants:** Nitrate

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

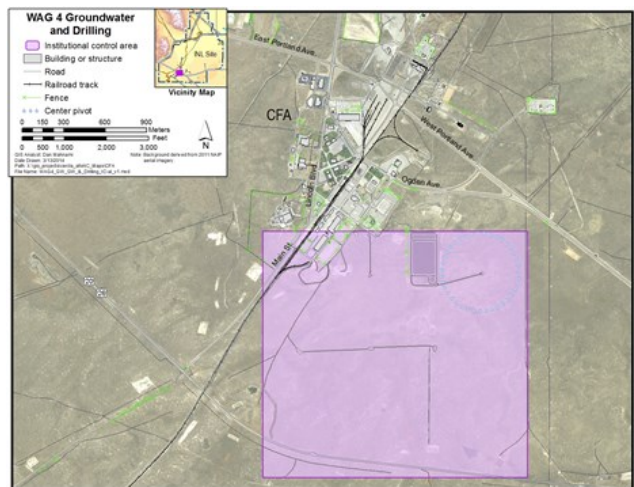
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:** IC termination date is Not Specified. ICs will continue until Nitrate concentrations in groundwater are less than MCLs. This is per DOE/ID-10719, Section 9.1; section 4.3 estimates ~ 15 years.

**ROD-Selected Remedy:** Updated in an ESD (DOE-ID 2011b) and Revision 7 of the ICs and O&M Plan (DOE\_ID 2000d)

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: ARA-06 - ARA-II SL-1 Burial Ground

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:** WAG 5: OU 05-05

**Description:** ARA-06 is a radioactive waste landfill containing debris, soil, and gravel from cleanup of the 1961 SL-1 reactor accident. In 1996, remedial action consisting of an engineered barrier was implemented at ARA-06.

**Contaminants:** Cs-137, Sr-90

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

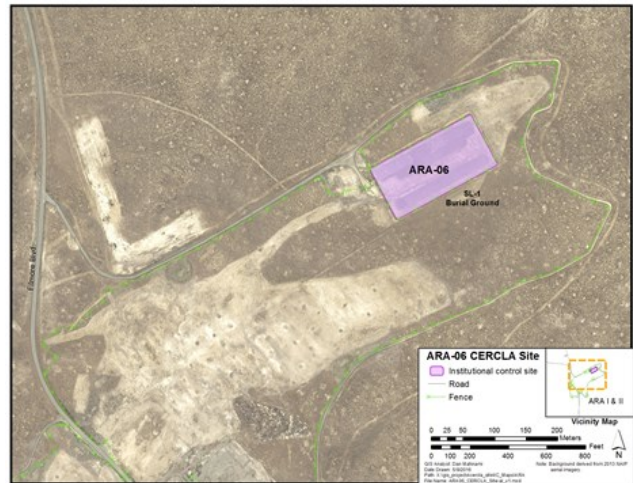
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2400

**IC Termination Notes:** 2400, DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: ARA-07 - ARA-II Seepage Pit to East (ARA-720A)

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:** WAG 5: OU 05-00

**Description:** The ARA-07 seepage pit just outside of the ARA-II facility fence was the terminus for two septic tanks and possibly for an underground waste retention tank.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

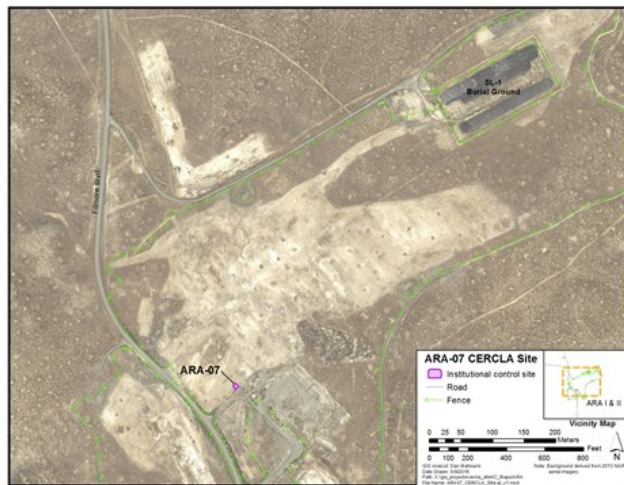
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2038

**IC Termination Notes:** 5-year review, DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No action. Best management practice was applied during OU 5-12 remediation to partially remove structures and sample.

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: ARA-08 - ARA-II Seepage Pit to West (ARA-720B)

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:** WAG 5: OU 05-00

**Description:** ARA-08 was an inactive seepage pit outside of ARA-II facility. It received waste from the Administrative and Technical Support Building (Building 606).

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

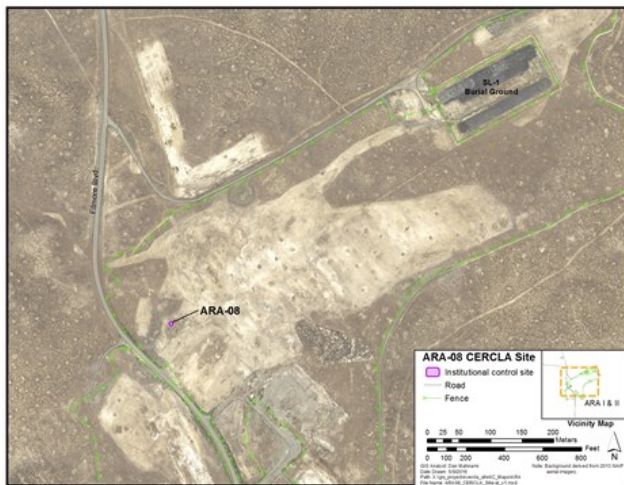
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2020

**IC Termination Notes:** 5-year review, DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No action. Best management practice was applied during OU 5-12 remediation to partially remove structures and sample.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: ARA-23 - ARA Radiologically Contaminated Soil and Contaminated Subsurface Structures at ARA I and II

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:** WAG 5: OU 05-12

**Description:** ARA-23 is a 240-acre windblown contamination area surrounding ARA-I and ARA-II, and subsurface structures remaining after decontamination and dismantlement within the facilities. Winds dispersed the contamination, but soil concentrations over most of the area less than remediation goals. Remediation was completed in 2004.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

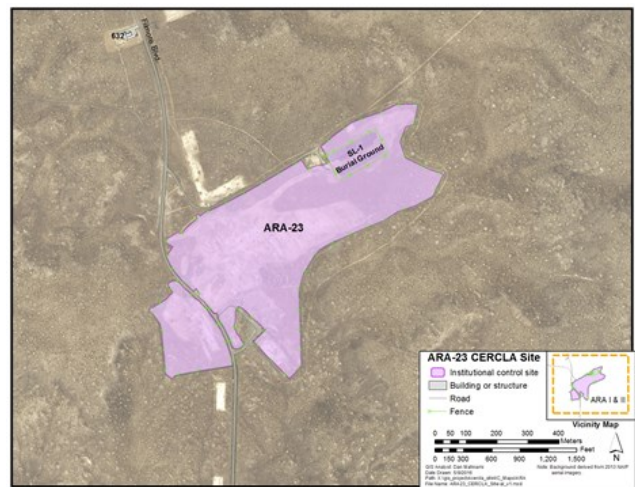
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2120

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5; portions releasable beginning 2025

**ROD-Selected Remedy:** Removal and disposal of contaminated soil. OU 5-12 ROD, section 8.9.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: ARA-24 - ARA-III Radiologically Contaminated Soil and Abandoned Substructures

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:** WAG 5: OU 05-12

**Description:** This site consists of contaminated soils in and around ARA-III and a subsurface pipeline. Soils do not pose risk greater than  $1\text{E-}06$ . ICs are required for the pipeline.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate--insufficient characterization data (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: ARA-25 - ARA-I Soils Beneath the ARA-626 Hot Cells

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:** WAG 5: OU 05-12

**Description:** ARA-25 is comprised of contaminated soil that was discovered beneath the ARA-626 Hot Cells in 1988; contamination was found near the hot cell floor drains. This site was remediated in 2001.

**Contaminants:** Arsenic, Copper, Cs-137, Lead, Ra-226

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

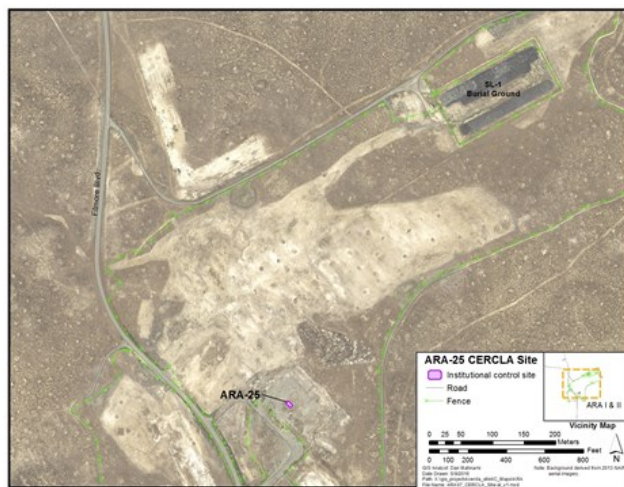
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite (DOE/ID-11429, Rev. 0, Table 10-5) because of metals

**ROD-Selected Remedy:** Removal and disposal of contaminated soil. Metal contaminants require ICs to remain indefinitely.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: PBF-13 - PBF Reactor Area Rubble Pit

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:** WAG 5: OU 05-03

**Description:** The PBF-13 site is a rubble pit that was first used to dispose of soil and basalt pieces excavated during facility construction in the late 1960s and was later used as a dump for construction materials and piping with asbestos insulation. All visible materials containing asbestos were removed in 1993 and the pit was backfilled with clean soil and basalt rubble. Risk evaluation for this site identified no unacceptable risk, but the site contains construction waste, possibly friable asbestos.

**Contaminants:** Asbestos

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite (DOE/ID-11429, Rev. 0, Table 10-5)

**ROD-Selected Remedy:** No further actions with ICs. Asbestos contaminants require indefinite ICs.

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: PBF-39 - PBF Reactor location

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:**

**Description:** PBF-39 consists of the former location of the PBF reactor.

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

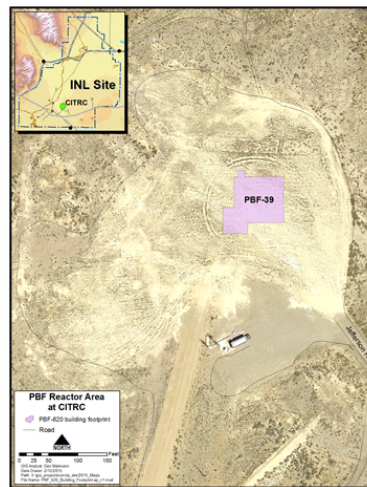
**IC Source Reference:**

**IC Termination Year:** Not Specified

**IC Termination Notes:** IC's will be established in Part B of the NSI form.

**ROD-Selected Remedy:** Remedy will be specified in Part B of the NSI form.

**Remediation Complete:**





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 5: PBF-41 - Storm Water Injection well, SPERT DISP 2

**Physical WAG:** WAG 5 - CITRC/ARA

**Administrative WAG/OU:**

**Description:** Site PBF-41 consists of PBF storm water injection well SPERT Disposal 2

**Contaminants:**

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

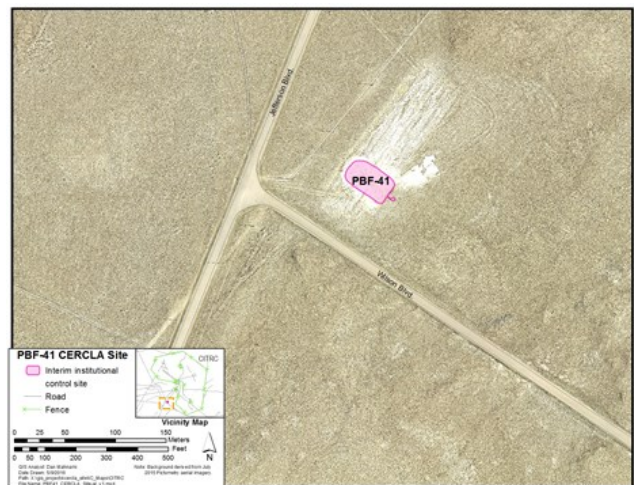
**IC Source Reference:**

**IC Termination Year:**

**IC Termination Notes:**

**ROD-Selected Remedy:**

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 6: BORAX-01 - BORAX-II-V Leach Pond

**Physical WAG:** WAG 6 - EBR-I/BORAX

**Administrative WAG/OU:** WAG 6: OU 06-05

**Description:** BORAX-01 consists of the BORAX II through V leach pond. The pond was used from 1954 to 1964 to collect low-level radioactively contaminated liquid discharges from the reactor experiments. D&D activities were conducted in 1984, 1991 and 1992; however, due to residual contamination the site remains institutionally controlled.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

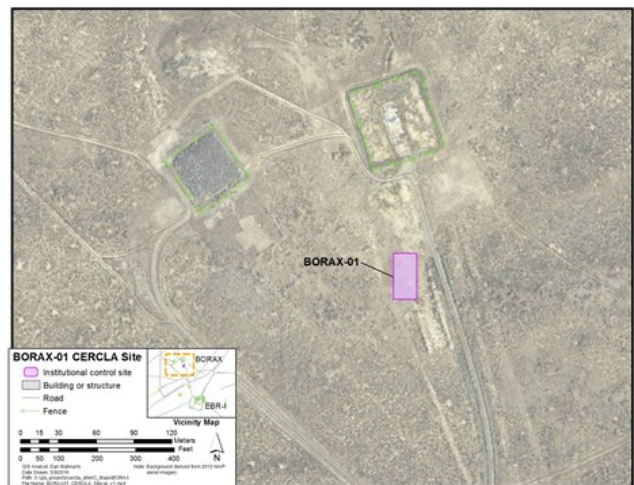
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2075

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 6: BORAX-02 - BORAX-I Burial Site

**Physical WAG:** WAG 6 - EBR-I/BORAX

**Administrative WAG/OU:** WAG 6: OU 06-01

**Description:** BORAX-02 consists of the BORAX-I Reactor Burial Site. Before its replacement, the reactor was purposely subjected to a single, very quick, destructive excursion. The resulting steam explosion scattered fuel plate fragments up to 300-ft. Initial cleanup of the site was performed in 1955. Remedial actions were conducted in 1996 when radionuclide contaminated surface soil was consolidated with the reactor vessel and capped. The presence of buried contamination requires that the site be institutionally controlled.

**Contaminants:** Cs-137, Sr-90, U-235

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Groundwater use restrictions  
Long-Term Stewardship Tracking System  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements  
Well drilling/construction restrictions

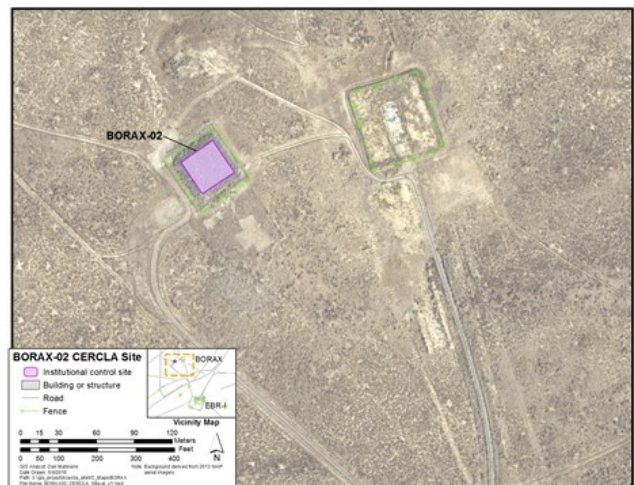
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs and O&M

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 6: BORAX-09 - BORAX II, III, IV, V Reactor Facilities

**Physical WAG:** WAG 6 - EBR-I/BORAX

**Administrative WAG/OU:** WAG 6: OU 06-02

**Description:** BORAX II through V Reactor Building site consists of the entombed below ground structures remaining from AEF-601. A D&D removal and containment action was conducted at BORAX-09 beginning in April 1996 and concluding in May 1997. However, some contamination remains which makes the site inappropriate for free residential use at this time, as per the OU 10-04 ROD.

**Contaminants:** Cs-137

**Site Category:** Barrier

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Groundwater use restrictions

Long-Term Stewardship Tracking System

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

Well drilling/construction restrictions

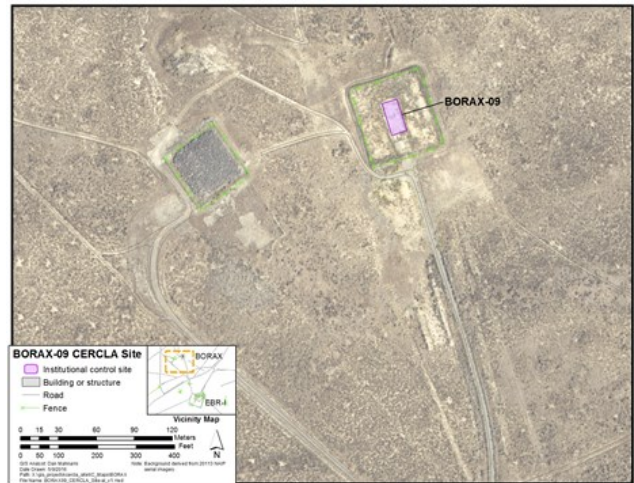
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite - Five-Yr Review (DOE/ID-11429) Table 10-5,

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 6: EBR-08 - EBR-1 (WMO-703) Fuel Oil Tank

**Physical WAG:** WAG 6 - EBR-I/BORAX

**Administrative WAG/OU:** WAG 6: OU 06-03

**Description:** EBR-1 (WMO-703) fuel oil tank.

**Contaminants:** Diesel-Range Organics

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

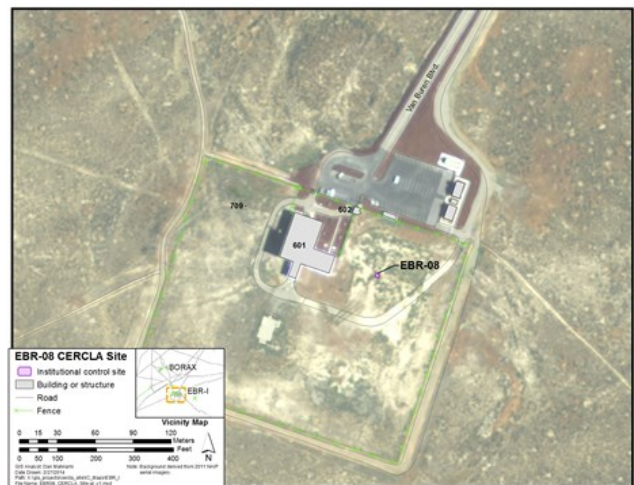
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite Five-Yr Review (DOE/ID-11429) Table 10-5, Rev. 0

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 7: WAG 7 GW and Drilling IC Area - WAG 7 Groundwater and Drilling IC Area

**Physical WAG:** WAG 7 - RWMC

**Administrative WAG/OU:** WAG 7: OU 07-13/14

**Description:** This is not a specific CERCLA site, rather it is an institutional control area to restrict groundwater use within and surrounding the OU 7-13/14 land use control area. The boundary of the drilling and groundwater institutional control includes those areas where groundwater concentrations have or are predicted to exceed MCLs, as shown on the map below. Through the ongoing review process for the IC plan and CERCLA 5-year reviews, this boundary will be adjusted, as necessary, to ensure that the restricted area covers groundwater that exceeds any MCL.

**Contaminants:** 1,4 dioxane, C-14, Carbon tetrachloride, I-129, Nitrate, Tc-99, methylene chloride, tetrachloroethylene, trichloroethylene

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

- Fencing requirements
- Long-Term Stewardship Tracking System
- Marker requirements
- Physical security requirements
- Property transfer/lease requirements
- Signage requirements
- Site disturbance requirements

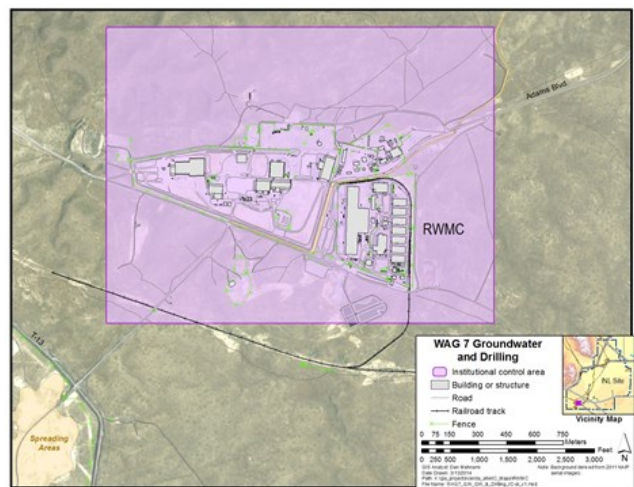
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2110

**IC Termination Notes:** per DOE/ID-11359, Section 8 RG #2

**ROD-Selected Remedy:** The selected remedy protects groundwater by continued operation of the vapor vacuum extraction and treatment system, in situ grouting, targeted waste retrieval, an engineered surface barrier, and long-term surveillance, maintenance, monitoring, and ICs.

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 7: WAG 7 Land Use Control Area - WAG 7 Comprehensive RI/FS and Land Use Control Area

**Physical WAG:** WAG 7 - RWMC

**Administrative WAG/OU:** WAG 7: OU 07-13/14

**Description:** This site consists of the Subsurface Disposal Area (SDA), the Transuranic Storage Area, the Operations and Administrative Area, and the surrounding buffer area that extends ~100m beyond historical SDA and TSA boundaries. Institutional controls apply to the site.

**Contaminants:** 1,4 dioxane, Am-241, C-14, Carbon tetrachloride, Cs-137, I-129, Nitrate, Pb-210, Pu-239/Pu-240, Ra-226, Ra-228, Sr-90, Tc-99, methylene chloride, tetrachloroethylene, trichloroethylene

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Fencing requirements  
Long-Term Stewardship Tracking System  
Marker requirements  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite, not expected to ever terminate (DOE/ID-11359, Section 12.2.5.2)

**ROD-Selected Remedy:** Targeted waste retrieval in pits, continued vapor vacuum extraction and treatment of vadose zone organics, in situ grouting of selected trench and soil vault locations, engineered surface barrier, and long-term surveillance, maintenance, monitoring, and ICs.

**Remediation Complete:** Not Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 9: ANL-01 - Industrial Waste Pond and Cooling Tower Blowdown Ditches

**Physical WAG:** WAG 9 - MFC

**Administrative WAG/OU:** WAG 9: OU 09-04

**Description:** The Industrial Waste Pond is an unlined, approximately 1.2-ha (3-acre) evaporative seepage pond fed by the Interceptor Canal and site drainage ditches. The pond was excavated in 1959, obtained a maximum water depth of about 4 m (13 ft) in 1988, and is still in use today. Ditch A conveyed industrial wastewater from the EBR-II Power Plant auxiliary cooling tower to the Industrial Waste Pond. To date, Ditch A is still being used to transport storm-water runoff, as well as intermittent auxiliary cooling tower waters. Discharges to Ditch A flow into the Main Cooling Tower Blowdown Ditch and ultimately into the Industrial Waste Pond. The mercury contamination is most likely the result of slight concentrations in the acid used to regenerate the ion beds in the EBR-II Power Plant.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

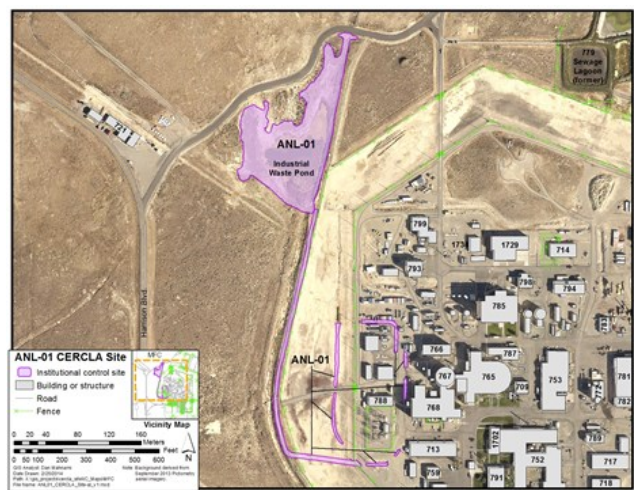
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2028

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5

**ROD-Selected Remedy:** Phytoremediation.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 9: ANL-04 - ANL Sewage Lagoons

**Physical WAG:** WAG 9 - MFC

**Administrative WAG/OU:** WAG 10: OU 10-08

**Description:** Site ANL-04 consists of three sanitary sewage lagoons located at the Sanitary Sewage Treatment Facility north of the MFC facility. Two of the lagoons were built in 1965 and the third was built in 1974. The lagoons were in use until 2013, when discharge was discontinued. The sediment on the bottom of the ponds is being allowed to dry before samples are taken. Sludge at the bottom of the lagoons is contaminated with mercury, but do not pose an imminent risk to ecological receptors until the sediment dries out. This site was administratively transferred to OU 10-08.

**Contaminants:** Mercury

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

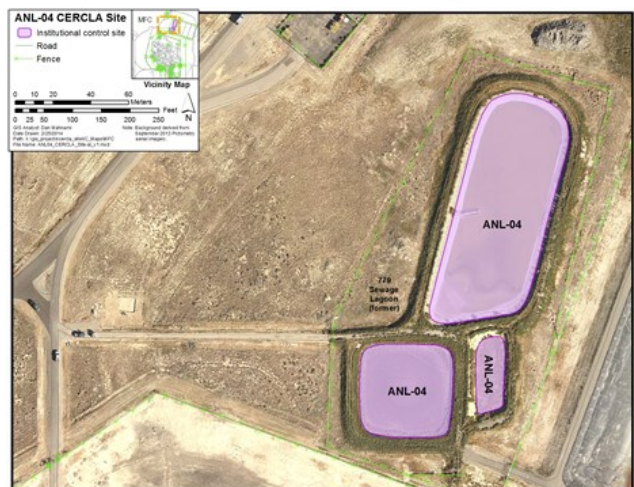
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indeterminate (DOE/ID-11429, Rev. 0, Table 10-5) - Lagoons are still in use. IC termination will be revisited upon closure of the lagoons.

**ROD-Selected Remedy:** Delay remedy implementation

**Remediation Complete:** Not Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 9: ANL-09 - ANL Interceptor Canal

**Physical WAG:** WAG 9 - MFC

**Administrative WAG/OU:** WAG 9: OU 09-04

**Description:** The interceptor canal was used to transport industrial waste, and cooling tower effluent to the Industrial Waste Pond from 1962 to 1975. The canal was also used to divert spring runoff and other natural waters around the MFC facility for flood control. Although liquid radioactive waste was diverted to the EBR II leach pit, they were discharged through a portion of the pipeline the supplied industrial waste canal, resulting in Cs-137 contaminants in the canal sediments.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

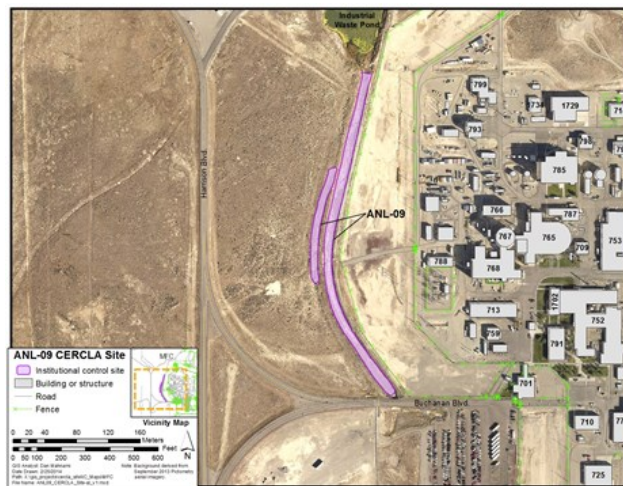
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2048

**IC Termination Notes:** Five-Yr Review (DOE/ID-11429) Table 10-5

**ROD-Selected Remedy:** Phytoremediation.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 9: ANL-67 - Asbestos at MFC-795

**Physical WAG:** WAG 9 - MFC

### Administrative WAG/OU:

**Description:** Buried remains of buildings MFC-767 (Experimental Breeder Reactor II), and -795 (Cover Gas System Building).

**Contaminants:** Asbestos

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

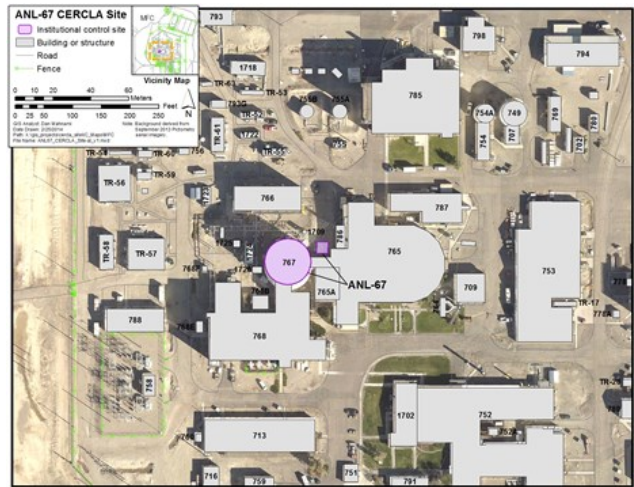
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Not Specified

**IC Termination Notes:**

**ROD-Selected Remedy:** Site remediation under NTCRA

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: MISC-26 - Detonation Pit between NRF and ATR Complex

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** This site is the location of suspected explosives testing or disposal site. No craters are in the area, but munitions components (projectile fragments and RDX) were found.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

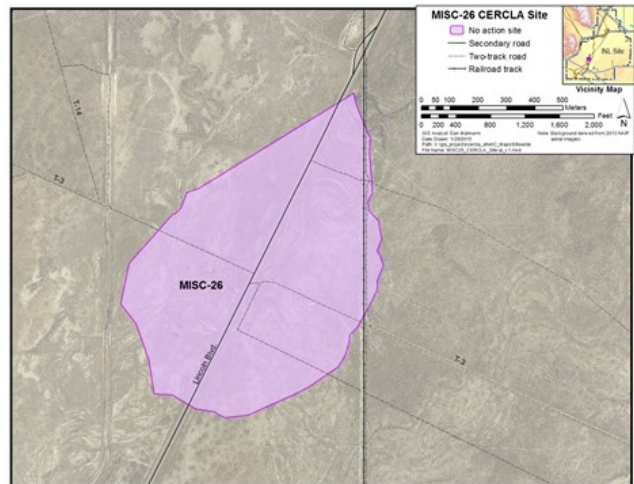
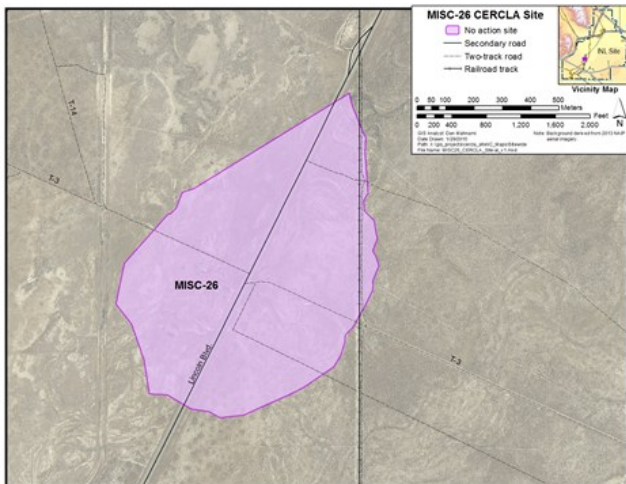
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls.

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: MISC-35 - Detonation Pits North of EOCR

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** This site is the location of three craters. Historical information is limited on the site, but INL security use of the STF-02 gun range could be a factor. Munitions constituents were found and removed. Institutional controls are not required for this site per Phase II RA Report.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: MISC-50 - Monitoring Well MIDDLE-2051

**Physical WAG:** WAG 10 - Misc Sites

### Administrative WAG/OU:

**Description:** Multi-port aquifer monitoring well MIDDLE-2051 is located in the southwest portion of the INL site, and is currently used for groundwater sampling by both the Idaho Cleanup Project (ICP) and the U.S. Geological Survey. The well is located close to the channel of the Big Lost River (normally dry) in a relatively isolated portion of the INL Site. Well MIDDLE-2051 serves as an upgradient (background) well for WAG 7 that helps to establish the quality of the groundwater flowing southwest toward the RWMC. As specified in the WAG 7 Field Sampling Plan (DOE/ID-11492, rev. 1), groundwater samples are collected biennially from the uppermost two sampling ports (Ports 9 and 12).

During routine groundwater sampling in November 2015, tetrachloroethene (PCE or perchloroethylene) was detected in the groundwater samples collected from the well (upper two ports). Confirmation resampling was performed in March 2016, and the results confirmed the presence of PCE at low levels in the groundwater. Another sampling event was performed on June 8, 2016 in collaboration with the U.S. Geological Survey. On that date, groundwater samples were collected from all five sampling depths in well MIDDLE-2051. The June 2016 results indicated the presence of PCE at a higher concentration in the groundwater sample collected from the deepest sampling depth (1141 ft depth, Port 1). PCE is the only organic compound that has been detected in groundwater from this well. There are no known sources of solvents near this well, and the source of the PCE detected in well MIDDLE-2051 is currently unknown.

### Contaminants:

**Site Category:** Groundwater

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

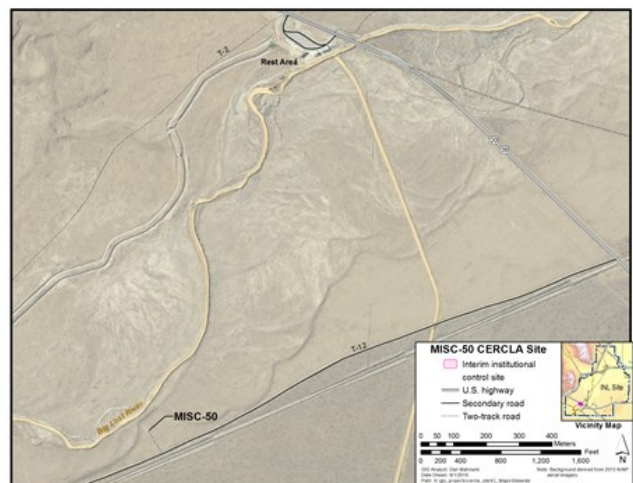
**IC Source Reference:**

**IC Termination Year:**

**IC Termination Notes:**

**ROD-Selected Remedy:**

**Remediation Complete:**



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: OMRE-01 - OMRE Leach Pond

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-02

**Description:** Organic Moderated Reactor Experiment (MORE) leach pond.

**Contaminants:** Cs-137

**Site Category:** Soil

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)

Fencing requirements

Long-Term Stewardship Tracking System

Marker requirements

Physical security requirements

Property transfer/lease requirements

Signage requirements

Site disturbance requirements

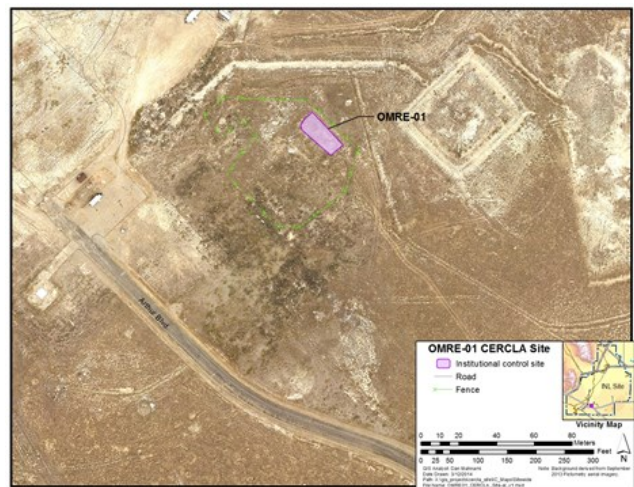
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** 2039

**IC Termination Notes:** DOE/ID-11429, Rev. 0, Table 10-5

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Not Required





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-01 - Arco High-Altitude Bombing Range

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** Arco High Altitude Bombing Range was used during World War II by the U.S. Army Air Force for aerial bombing practice. The extent of the bombing range is over 26,400 acres. Primary ordnance used at this site were sand-filled practice bombs with spotting charges and incendiary devices. While the site was searched on foot by field crews in 1996, and visual assessment observed no signs of craters, detonation tests, surface MEC, pieces of explosives, or soil contamination, there is potential for MEC (i.e., intact spotting charges) to remain in the area. Therefore, institutional controls are required at this site.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

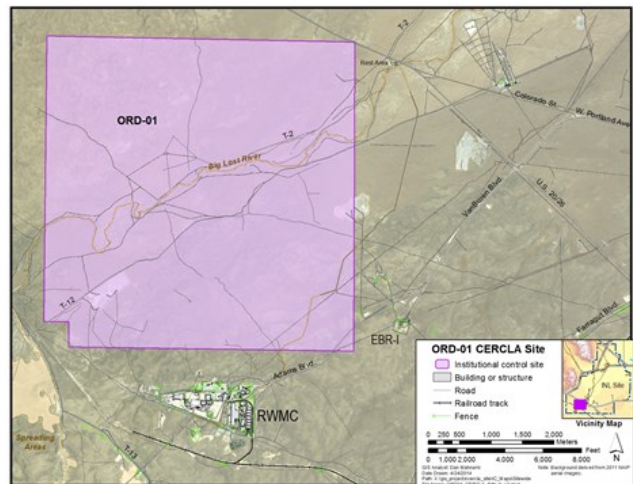
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-03 - Naval Proving Ground

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** CFA-633 Naval Firing Site and Downrange Area corresponds to the Naval Proving Ground. It encompasses several sites that were used for explosives testing during World War II. MEC (i.e., DMM, UXO, and TNT/RDX) have been detected and cleared from surface and subsurface at some of these sites. However, clearance is not complete in accordance with the ROD and potential exists to encounter MEC. The site does not qualify for unrestricted land use and institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

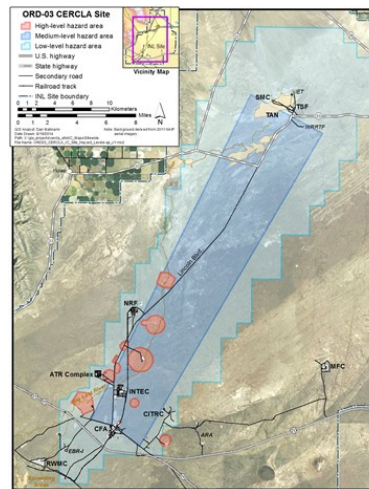
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-06 - Naval Ordnance Disposal Area

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-06 was used extensively for ordnance testing research during World War II. The original site appears on maps as a square. The current site is larger because a range fire exposed ordnance beyond the original boundary. The site boundary has been enlarged to reflect the expanded area of concern. Although detected MEC has been removed from the site, clearance is not assumed to be complete and potential exists to encounter MEC. The site is therefore not released for residential use and institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

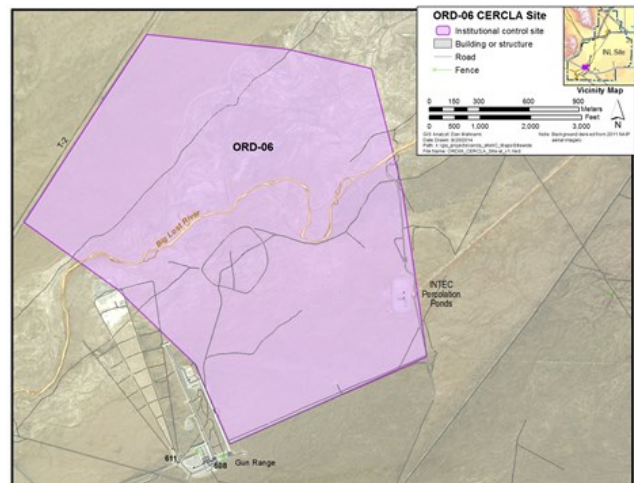
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls.

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-08 - National Oceanic and Atmospheric Administration

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-08 was used for ordnance testing research during World War II. The area contains a number of small craters, low-ordered bomb casings and detonators, and some widely scattered pieces of explosives. During the 2008 remedial action, the site was expanded and encompassed ORD-10. The RA Report determined ICs were no longer required for explosives contamination, however, because this site lies within the boundaries of ORD-03, institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

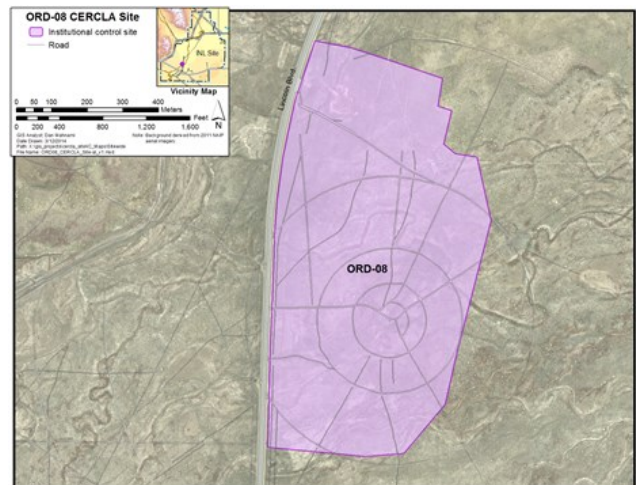
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-09 - Twin Buttes Bombing Range

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** Twin Buttes Bombing Range was used during World War II to train heavy bombardment crews in precision bombing while they were stationed at the Pocatello Army Air Base. Primary ordnance used at the site were sand-filled practice bombs with spotting charges and illumination flares. Two craters discovered on the site indicate high-explosive detonations occurred. The extent of the site is 9,291 acres and a portion of the site (90 acres) was cleared of MEC to a maximum depth of 4-ft during a 1994 removal action. Later assessments determined that MEC remains in the area. Therefore, institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

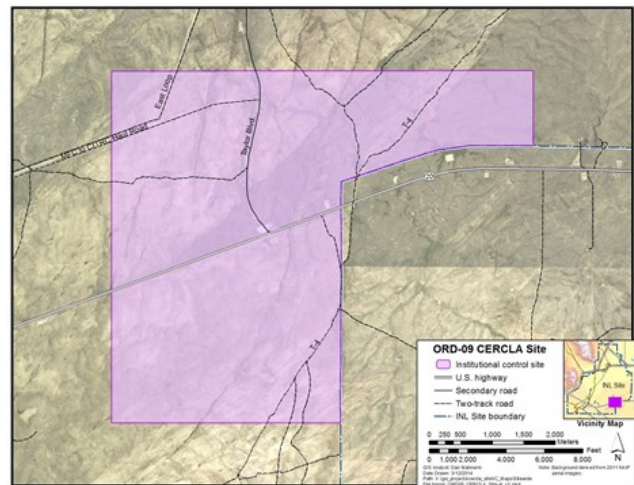
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-10 - Fire Station II Zone and Range Fire Burn Area

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-10 is adjacent to the former Fire Station II training site. Naval Proving Ground explosives testing activities at this site included low-order bomb detonations that scattered MEC over the area. The the extent of contamination (TNT-contaminated soil) was 33 acres and the site was encompassed by ORD-08 during the 2008 remedial action. The RA Report determined ICs were no longer required for explosives contamination, however, because the site lies within the boundary of ORD-03, institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

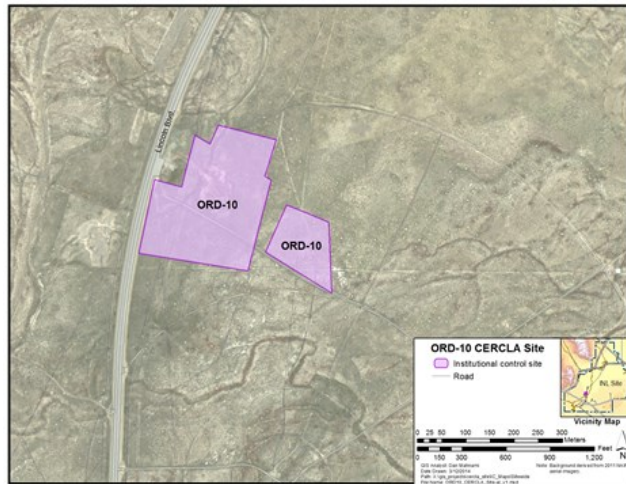
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**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-13 - Mass Detonation Area

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-13 has been used for a number of small to large scale sympathetic and mass detonation tests, with test shots ranging up to 500,000-lbs of explosives. The site includes numerous blast craters varying in dimension from a few feet to several tens of feet and is littered with large quantities of MEC and structural debris. This site encompasses ORD-12. Although MEC has been detected and removed from ORD-13, clearance is not assumed complete and potential exists to encounter MEC. Institutional controls must therefore be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

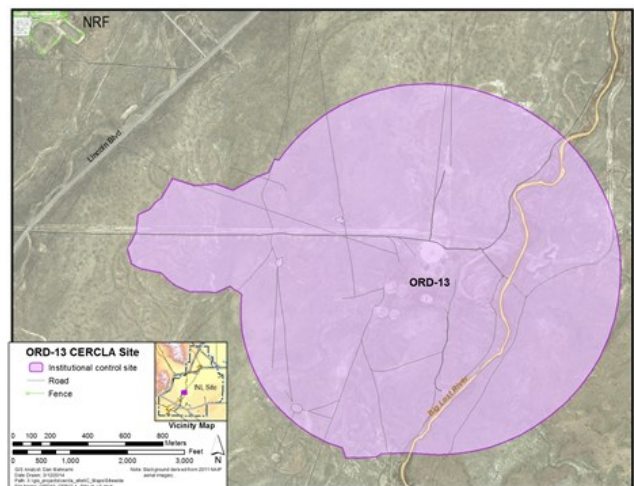
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-15 - Experimental Field Station

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** Experimental field station (EFS). ORD-15 includes multiple craters within which a variety of explosive-tests were conducted. Remnants of World War I and World War II vintage bombs were found and removed from this area. Two areas of widespread heavy concentrations of explosive-contaminated soils were found, as well as several large craters. This site encompasses ORD-14, ORD-17, ORD-18, and ORD-27. Although MEC has been detected and removed from this site, clearance is not assumed complete and potential exists to encounter MEC. Because of potential MEC, institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

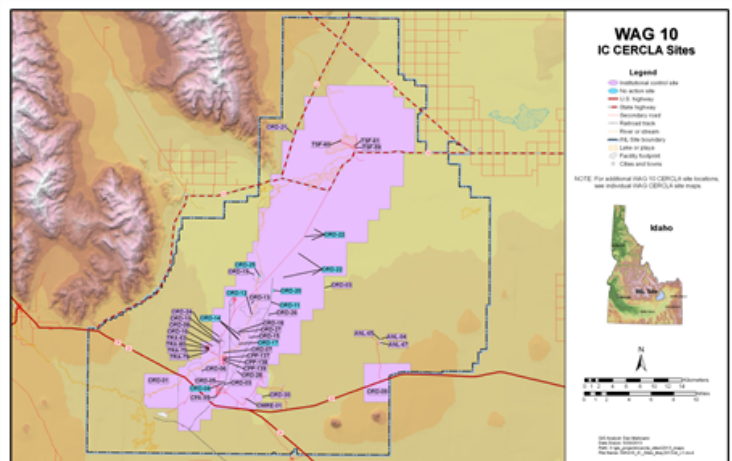
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-16 - DMM East of ATR Complex

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** DMM east of ATR Complex. Approximately 18 low-ordered U.S. general purpose bombs were found at this site, located east of ATR Complex. The bombs were transported to the Mass Detonation Area for disposal by detonation during the 1996 removal action. Although MEC has been previously detected and cleared from the area, clearance is not assumed complete and potential exists to encounter MEC. Therefore, institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

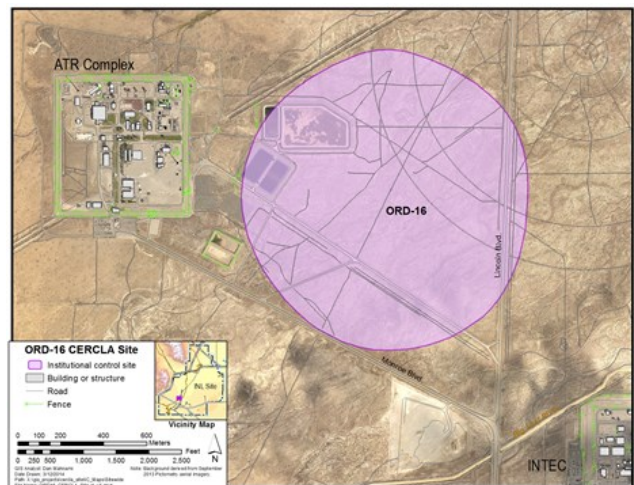
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-19 - Rail Car Explosion Area

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-19 contains debris scattered from a sympathetic detonation test involving five railroad cars, each loaded with 30,000-lbs of explosives. High-explosive projectiles, inert sea mines (depth charges) and bulk explosives (RDX) have been found in the area. This site encompasses ORD-25. Though MEC has been previously detected and removed from the area, clearance is not complete and potential exists to encounter MEC. Therefore, institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

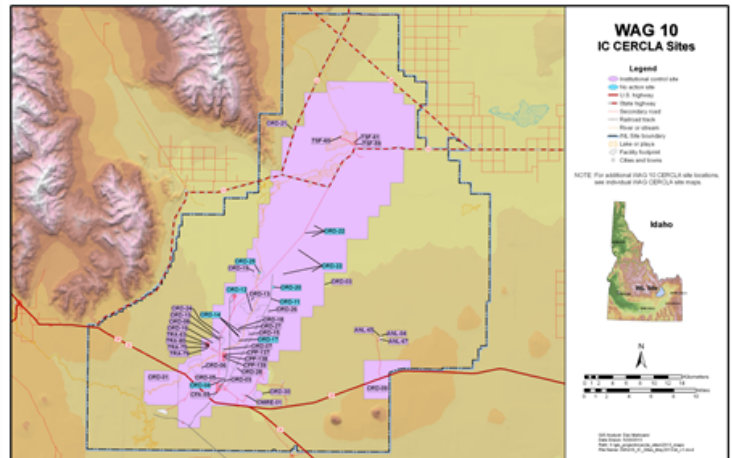
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-21 - Juniper Mine

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-21 is an abandoned and back-filled mine that was used in the 1970s for seismic studies. Explosives are known to be present (below 10-ft). This site has not been released for residential use and institutional controls must be maintained, per the OU 10-04 ROD.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

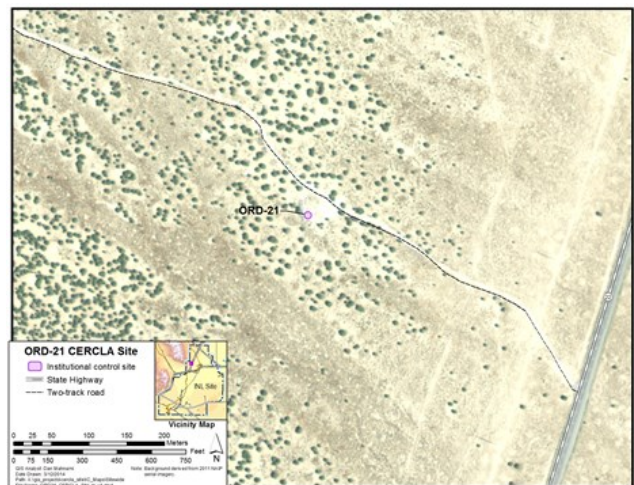
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** No further action with ICs

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-24 - Land Mine Fuze Burn Area

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-24 consists of five ordnance disposal locations between a former meandering channel of the Big Lost River and an old abandoned irrigation canal that was hand dug in the early 1900s. The site was used by Naval Proving Ground personnel for disposal of land mine pressure plates, aerial bomb packaging materials, and as an area to burn and dispose land mine fuzes. There is a potential for MEC to remain in this area, therefore, institutional controls must be maintained at this site.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

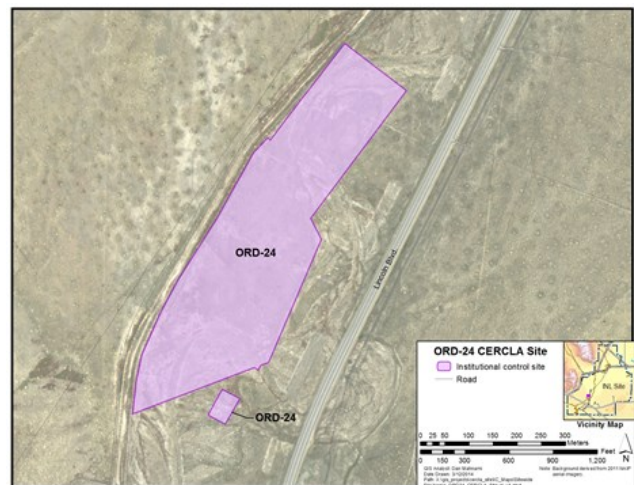
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete





# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-28 - Craters East of INTEC

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** ORD-28 includes three small craters southeast of the INTEC facility. The area adjacent to and surrounding the craters is littered with debris and pieces of explosives resulting from explosives tests or associated cleanup detonations. This area was within the impact zone of "extreme elevation" anti-aircraft proof firings from the Naval Proving Ground gun emplacements. Although MEC has been previously detected and removed from the area, clearance is not assumed complete and potential exists to encounter MEC. Therefore, institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

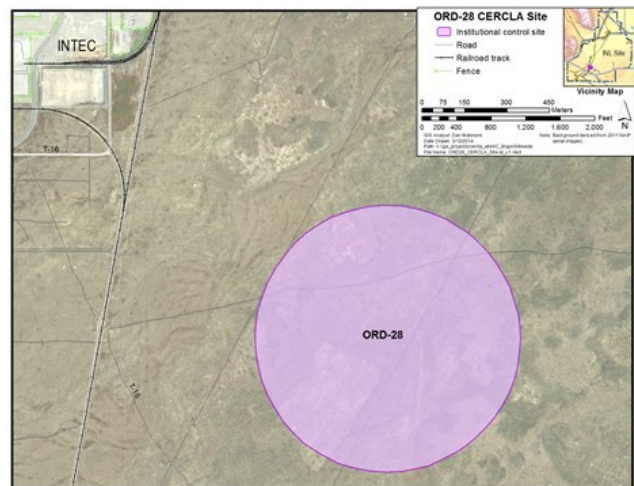
**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls.

**Remediation Complete:** Complete



# INL Waste Area Group Institutional Controls Report

Monday, December 26, 2016

## WAG 10: ORD-30 - Rye Grass Flats

**Physical WAG:** WAG 10 - Misc Sites

**Administrative WAG/OU:** WAG 10: OU 10-04

**Description:** Projectiles and explosive material northwest of Rye Grass Flats; this site is the location of a suspected disposal site. No craters are in the area, but munitions components (projectile fragments and RDX) were found. This site has not been released for residential use and institutional controls must be maintained.

**Contaminants:** Discarded Military Munitions (DMM)

**Site Category:** Ordnance

**IC Implementation:** Federal Facility Agreement and Consent Order (DOE-ID 1991)  
Long-Term Stewardship Tracking System  
Management of potential munitions and explosives of concern  
Physical security requirements  
Property transfer/lease requirements  
Signage requirements  
Site disturbance requirements

**IC Source Reference:** DOE/ID-11042

**IC Termination Year:** Indefinite

**IC Termination Notes:** Indefinite per DOE/ID-11498

**ROD-Selected Remedy:** Institutional controls

**Remediation Complete:** Complete

